

THE OIL OF ANTIMONY

The techniques given here involve making glass of antimony and have been extracted from Lawrence Principe's paper in *AMBIX* and from his correspondence to me. The purpose of this paper is to set down the whole process, utilizing the findings he made as he worked with Basil Valentine's instructions, in a convenient single source of instruction to make the oil. A recipe to use! Dr. Principe was kind enough to review and correct this paper.

1. Have on hand Antimony TriOxide. This can be "store bought" or made from Stibium TriSulfide (ore). In either event, one must add some iron oxide in the amount of a half gram to each 100 grams of the sulfide (or the oxide if using commercial oxide or pre-made oxide).
2. Take 22 grams of Antimony TriOxide and add to it .3 grams of silica. This enables the glass to form. Enough silica may be pulled from the walls of the crucible, but the addition of a little silica insures that a glass will obtain. In addition, .5 gram of Antimony TriSulfide should be added to the mix (of silica and Sb_2SO_3) before fluxing. In terms of weight, this is 1.5-2.0% of silica and 3-4% TriSulfide to the TriOxide.
3. This mixture can now be fluxed following Valentine's directions. One can test for 'maturity' as he suggests, using an iron rod (a nail for example) and when the glass IS mature, it will adhere to the rod and be perfectly clear. When it is mature, pour the molten glass from the crucible into a brass or copper plate or dish, as thin as possible. (makes it easier to grind later). No Borax need be used as a fluxing agent.

Let the glass cool. It will be a yellow glass but other colors can be obtained. (See "Triumphal Chariot of Antimony"). When cool, grind it quite fine, to a powder-like consistency.

4. Beforehand, prepare the extraction medium. Valentine (probably) used wine vinegar and it was probably 'sharpened' with 'salmiac', according to Principe. Salmiac or Sal Ammoniac, is a mixture of ammonium chloride and ammonium carbonate. It is the ammonium carbonate that is important in this operation.

One can use glacial acetic acid reduced with distilled water to 15%-20% acid. Or, one can use distilled (to remove color!) wine vinegar. In either case add 1-2%, by weight, of ammonium carbonate and stir. The carbonate will convert to an acetate.

5. Put the ground glass of \ddot{O} into a flat bottomed flask and top it with the 'sharpened' extraction media by about 4-5 fingers. Set on a gentle heat such as a Balneum Mariæ and the extraction will take place, the vinegar coloring. When the color is quite pronounced, decant and reserve the tincture. Add fresh vinegar (the extraction media) and set back on the heat. Repeat this process, collecting the tinted vinegars, until no more color can be extracted from the powdered glass of antimony. Combine all the tinted vinegars and filter them.

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6. Put the liquid into a distillation train and distill off the vinegar, gently. When the vinegar is over, left behind is a reddish-yellow powder. Sweeten this powder with distilled rainwater and extract it with ethanol (alcohol). The feces are of no value and may be discarded.
7. Once the powder has been sweetened and extracted with alcohol (which tincts a red color), the oil can be obtained. This is a matter of gently distilling off the alcohol, in a BM (a water bath) to prevent oil from scorching. The oil thus obtained is a marvelous medicine.
8. Note that *salmiac* (a mixture of ammonium chloride and ammonium carbonate) is known as "Salt of Armenia". Armenia was (is) a volcanic region and this salt was obtained from this area at the Black Sea. **NOTE**; This product may well be what Valentine calls "THE BITCH OF ARMENIA". In any event, Dr. Principe's research will enable the experimenter to avoid errors and produce a good glass to obtain the sweet oil of O.
9. It might be noted that in August of 1990, newspaper articles cite Dr. Principe's studies of the writings of Sir Robert Boyle. He, Dr. Principe, has discovered a coding technique used by Boyle. The decipherment of which is the Ariadne's cord leading the way through a labyrinth of obscure chemical terms.