

## DEODORIZED TINCTURE OF OPIUM.\*

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The official Deodorized Tincture of Opium is a solution of the water-soluble proximate principles of opium made from granulated opium and water, concentrated by evaporation on a water bath, washed with purified petroleum benzin and preserved with alcohol. The process eliminates resin, caoutchouc, ligneous matter, odorous principles, etc. The preparation is analogous to the old McMunn's Elixir of Opium.

The objection to the official method of making Deodorized Tincture of Opium is that it is tedious to carry out and the product, unless very carefully made, is apt to have a benzin odor.

Various improvements in the official formula, including the paraffin method, have been suggested, but the simplest and best procedure, in the judgment of the writer, is to make the preparation directly from deodorized opium, as advocated by the late Professor John M. Maisch (King's American Dispensatory, 1900, p. 1978). This has been done in the laboratory of Smith, Kline and French Co., for a number of years and with entire satisfaction.

The following method is recommended:

Deodorized Opium (containing 12 to 12.5 percent of crystallizable morphine).....	100	gms.
Alcohol .....	200	cc.
Water, a sufficient quantity		
To make.....	1000	cc.

To one thousand cubic centimeters of *cool* water, in an evaporating dish, gradually add the Deodorized Opium, mix and heat on a water bath for six hours, replacing water lost by evaporation. When cool, pour the mixture, as evenly as possible, upon a wetted, non-fluted paper filter in a funnel, returning the first portion of the filtrate until it runs clear. Then percolate the residue on the filter with water until the percolate passes colorless and is only faintly bitter. Concentrate the percolates on a water bath, until they measure seven hundred cubic centimeters, cool, add two hundred cubic centimeters of alcohol, and filter through a paper filter.

Assay the final product by the process given under *Tinctura Opii* of the U. S. Pharmacopœia and adjust the volume of preparation, by the addition of water, so that each one hundred cubic centimeters shall yield not less than 1.2 nor more than 1.25 gms. of crystallized morphine.

By making the final volume nine hundred cubic centimeters, and assaying, the product can be most readily standardized.

In the making of Deodorized Tincture of Opium from deodorized opium, *boiling* water has been used, but, in the writer's opinion, the use of *cool* water, and heating on a water bath, is preferable.

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