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Opium Tincture

» Opium Tincture contains, in each 100 mL, not less than 0.90 g and not more than 1.10 g of anhydrous morphine.

Opium Tincture may be prepared as follows.

Place 100 g of granulated or sliced Opium in a suitable vessel. [NOTE—Do not use Powdered Opium.] Add 500 mL of boiling water, and allow to stand, with frequent stirring, for 24 hours. Transfer the mixture to a percolator, allow it to drain, percolate with water as the menstruum to complete extraction, and evaporate the percolate to a volume of 400 mL. Boil actively for not less than 15 minutes, and allow to stand overnight. Heat the mixture to 80°, add 50 g of paraffin, and heat until the paraffin is melted. Beat the mixture thoroughly, and cool. Remove the paraffin, and filter the concentrate, washing the paraffin and the filter with sufficient water to make the filtrate measure 750 mL. Add 188 mL of alcohol to the filtrate, mix, and assay a 10-mL portion of the resulting solution as directed in the Assay. Dilute the remaining solution with a mixture of 1 volume of alcohol and 4 volumes of water to obtain a Tincture containing 1 g of anhydrous morphine in each 100 mL. Mix.

Packaging and storage—Preserve in tight, light-resistant containers, and avoid exposure to direct sunlight and to excessive heat.

ALCOHOL DETERMINATION (611): between 17.0% and 21.0% of C₂H₅OH, determined by the gas-liquid procedure, acetone being used as the internal standard.

Assay—

Chromatographic tubes, Citrate buffer, Standard preparation, and Chromatographic columns—Prepare as directed in the [Assay](#) under [Paregoric](#).

Assay preparation—Transfer 10.0 mL of Tincture to a 50-mL volumetric flask containing 10.0 mL of alcohol, add purified water to volume, and mix. Transfer a 2.0-mL aliquot of the solution, equivalent to about 4 mg of Morphine, to a 50-mL beaker, and add 0.5 mL of *Citrate buffer*.

Procedure—Proceed as directed for *Procedure* in the [Assay](#) under [Paregoric](#). Calculate the weight of anhydrous morphine, in g per 100 mL of the Tincture taken by the formula:

$$0.250W(A_u/A_s)$$

in which *W* is the weight, in mg, of anhydrous morphine in the 50 mL of *Standard preparation*, and *A_u* and *A_s* are the corrected absorbances of the solution from the *Assay preparation* and the *Standard preparation*, respectively.

Auxiliary Information - Please [check for your question in the FAQs](#) before contacting USP.

Topic/Question	Contact	Expert Committee
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Chromatographic Database Information: [Chromatographic Database](#)

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