

Status: Currently Official on 15-Feb-2025  
Official Date: Official Prior to 2013  
Document Type: USP Monographs  
DocId: GUID-5A72EDE7-4E31-49D4-BD67-23343423A175\_1\_en-US  
DOI: [https://doi.org/10.31003/USPNF\\_M42230\\_01\\_01](https://doi.org/10.31003/USPNF_M42230_01_01)  
DOI Ref: ghp9i

© 2025 USPC  
Do not distribute

## Powdered Ipecac

» Powdered Ipecac is Ipecac reduced to a fine or a very fine powder and adjusted to a potency of not less than 1.9 percent and not more than 2.1 percent of the total ether-soluble alkaloids of ipecac, by the addition of exhausted marc of ipecac or of other suitable inert diluent or by the addition of powdered ipecac of either a lower or a higher potency.

The content of emetine ( $C_{29}H_{40}N_2O_4$ ) and cephaeline ( $C_{28}H_{38}N_2O_4$ ) together is not less than 90.0 percent of the total amount of the ether-soluble alkaloids. The content of cephaeline varies from an amount equal to, to an amount not more than 2.5 times, the content of emetine.

**Packaging and storage**—Preserve in tight containers.

### USP REFERENCE STANDARDS (11)

USP Emetine Hydrochloride RS

**Botanic characteristics**—Thin-walled, fairly small cork cells, the starch grains rarely simple and usually 2- to 8-compound, the single grains up to 22  $\mu$ m in diameter; raphides of calcium oxalate 30 to 80  $\mu$ m in length; tracheids and tracheidal vessels found in groups having very numerous, small, bordered pits; parenchyma of phellogen filled with starch or acicular crystals of calcium oxalate, having cells thin-walled, oval with intercellular spaces; parenchyma of the xylem composed of small rectangular and longitudinally elongated cells with moderately thick walls and scattered bordered or simple pits; rhizome parenchyma cells larger than root parenchyma cells, with slightly thicker walls and lignified with fairly numerous simple pits; sclereids from the rhizome large, rectangular, with uneven walls and large, conspicuous pits.

**Assay for total ether-soluble alkaloids**—Proceed with Powdered Ipecac as directed in the Assay for total ether-soluble alkaloids under [Ipecac](#).

### **Assay for emetine and cephaeline**—

*Standard preparation, Phosphate buffer, Citric acid buffer, and Chromatographic columns*—Prepare as directed in the Assay for emetine and cephaeline under [Ipecac](#).

*Assay preparation*—Transfer to a 150-mL beaker about 200 mg, accurately weighed, of Powdered Ipecac. Add 2 mL of dimethyl sulfoxide, mix with a flattened stirring rod to ensure complete wetting of the powder, and allow to stand for about 30 minutes. Add 2 mL of water and about 1 g of sodium bicarbonate, and mix.

*Procedure*—Proceed as directed for *Procedure* in the Assay for emetine and cephaeline under [Ipecac](#). Calculate the quantity, in mg, of emetine in the portion of Powdered Ipecac taken by the formula:

$$0.05C(A_{283} - A_{350})_U / (A_{283} - A_{350})_S$$

in which the parenthetic expressions are the differences in the absorbances of the solution of emetine from the *Assay preparation* (U) and the *Standard preparation* (S), respectively, at the wavelengths indicated by the subscripts; and C is as defined for *Procedure* in the Assay for emetine and cephaeline under [Ipecac](#). Calculate the quantity, in mg, of cephaeline in the portion of Powdered Ipecac taken by the formula:

$$0.971(0.05C)(A_{283} - A_{350})_U / (A_{283} - A_{350})_S$$

in which 0.971 is the ratio of the molecular weight of cephaeline to that of emetine; the parenthetic expressions are the differences in the absorbances of the solution of cephaeline from the *Assay preparation* (U) and the *Standard preparation* (S), respectively, at the wavelengths indicated by the subscripts; and C is as defined above.

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

Topic/Question	Contact	Expert Committee
POWDERED IPECAC	<a href="#">Nam-Cheol Kim</a> Scientific Liaison	BDSHM2020 Botanical Dietary Supplements and Herbal Medicines
REFERENCE STANDARD SUPPORT	RS Technical Services <a href="mailto:RSTECH@usp.org">RSTECH@usp.org</a>	BDSHM2020 Botanical Dietary Supplements and Herbal Medicines

**Chromatographic Database Information:** [Chromatographic Database](#)

### **Most Recently Appeared In:**

Pharmacopeial Forum: Volume No. PF 30(3)

OFFICIAL