

Status: Currently Official on 16-Feb-2025

Official Date: Official Prior to 2013

Document Type: USP Monographs

DocID: GUID-81CD57A5-86E7-4DD1-A02A-754AD42E5C73\_1\_en-US

DOI: [https://doi.org/10.31003/USPNF\\_M60225\\_01\\_01](https://doi.org/10.31003/USPNF_M60225_01_01)

DOI Ref: g8n9s

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## Padimate O Lotion

» Padimate O Lotion contains not less than 90.0 percent and not more than 110.0 percent of the labeled amount of  $C_{17}H_{27}NO_2$ .

**Packaging and storage**—Preserve in tight, light-resistant containers.

**USP REFERENCE STANDARDS (11).**—

[USP Padimate O RS](#)

**Identification**—The retention time of the major peak in the chromatogram of the Assay preparation corresponds to that in the chromatogram of the *Standard preparation*, as obtained in the Assay.

**Assay**—

**Mobile phase**—Prepare a suitable filtered and degassed solution containing methanol, water, and glacial acetic acid (85:15:0.5).

**Standard preparation**—Dissolve an accurately weighed quantity of [USP Padimate O RS](#) in isopropyl alcohol and dilute quantitatively, and stepwise if necessary, with isopropyl alcohol to obtain a solution having a known concentration of about 100  $\mu$ g per mL.

**Assay preparation**—Transfer an accurately weighed quantity of Lotion, equivalent to about 100 mg of Padimate O, to a 100-mL volumetric flask, and add about 75 mL of isopropyl alcohol. Heat gently with swirling until the specimen is dispersed. Cool to room temperature, dilute with isopropyl alcohol to volume, and mix. Pipet 10.0 mL of this solution into a 100-mL volumetric flask, dilute with isopropyl alcohol to volume, and mix.

**Chromatographic system** (see [Chromatography \(621\)](#))—The liquid chromatograph is equipped with a 308-nm detector and a 4.6-mm  $\times$  25-cm column that contains 5- $\mu$ m base-deactivated packing L1. The flow rate is about 1.5 mL per minute. Chromatograph the *Standard preparation*, and record the peak responses as directed under *Procedure*: the tailing factor is not more than 2.5 and the relative standard deviation for replicate injections is not more than 2.0%.

**Procedure**—Separately inject equal volumes (about 10  $\mu$ L) of the *Standard preparation* and the *Assay preparation* into the chromatograph, record the chromatograms, and measure the responses for the major peaks. Calculate the quantity, in mg, of  $C_{17}H_{27}NO_2$  in the portion of Lotion taken by the formula:

$$C(r_u/r_s)$$

in which C is the concentration, in  $\mu$ g per mL, of [USP Padimate O RS](#) in the *Standard preparation*, and  $r_u$  and  $r_s$  are the peak responses for padimate O obtained 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
PADIMATE O LOTION	<a href="#">Documentary Standards Support</a>	SM32020 Small Molecules 3
REFERENCE STANDARD SUPPORT	RS Technical Services <a href="mailto:RSTECH@usp.org">RSTECH@usp.org</a>	SM32020 Small Molecules 3

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

**Most Recently Appeared In:**

Pharmacopeial Forum: Volume No. PF 30(2)

**Current DocID:** GUID-81CD57A5-86E7-4DD1-A02A-754AD42E5C73\_1\_en-US

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