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Zinc Oxide and Salicylic Acid Paste

» Zinc Oxide and Salicylic Acid Paste contains not less than 23.5 percent and not more than 25.5 percent of zinc oxide (ZnO), and not less than 1.9 percent and not more than 2.1 percent of salicylic acid (C₇H₆O₃).

It may be prepared as follows:

Salicylic Acid, in fine powder	20 g
Zinc Oxide Paste, a sufficient quantity	
to make	1000 g

Thoroughly triturate the Salicylic Acid with a portion of the paste, then add the remaining paste, and triturate until a smooth mixture is obtained.

Packaging and storage—Preserve in well-closed containers.

Identification—

A: The residue obtained in the *Assay for zinc oxide* is yellow when hot and white when cool.

B: Shake 1 g of it with 10 mL of water, and filter. To the filtrate add 1 mL of ferric chloride TS: an intense reddish violet color is produced. To this solution add 1 mL of acetic acid: the color is not dispersed. To this solution add 2 mL of 2 N hydrochloric acid: the color is dispersed and a white crystalline precipitate is formed.

MINIMUM FILL (755): meets the requirements.

Assay for zinc oxide—Weigh accurately in a tared porcelain crucible about 500 mg of Paste, heat gently until melted, and continue the heating, gradually raising the temperature until the mass is thoroughly charred. Ignite the mass strongly until all of the carbonaceous material has been dissipated, the residue is uniformly yellow, and the weight of the cooled residue is constant. The weight of the residue represents the quantity of ZnO in the weight of the Paste taken for the assay.

Assay for salicylic acid—Transfer to a suitable beaker about 5 g of Paste, accurately weighed. Add 40 mL of alcohol, previously neutralized with 0.1 N sodium hydroxide to a phenol red endpoint, and heat on a water bath for 5 minutes, with frequent swirling. While still hot, add phenol red TS, and titrate with 0.1 N sodium hydroxide VS to a red endpoint. Each mL of 0.1 N sodium hydroxide is equivalent to 13.81 mg of salicylic acid (C₇H₆O₃).

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

Topic/Question	Contact	Expert Committee
ZINC OXIDE AND SALICYLIC ACID PASTE	Brian Serumaga Science Program Manager	CMP2020 Compounding 2020
REFERENCE STANDARD SUPPORT	RS Technical Services RSTECH@usp.org	CMP2020 Compounding 2020

Chromatographic Database Information: [Chromatographic Database](#)

Most Recently Appeared In:

Pharmacopeial Forum: Volume No. Information currently unavailable

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