

Status: Currently Official on 14-Feb-2025
Official Date: Official Prior to 2013
Document Type: USP Monographs
DocId: GUID-AFFDB1DB-485A-4C61-9956-B1A622CBAFC9_1_en-US
DOI: https://doi.org/10.31003/USPNF_M18323_01_01
DOI Ref: o78n9

© 2025 USPC
Do not distribute

Compound Clioquinol Topical Powder

DEFINITION
Compound Clioquinol Topical Powder contains NLT 22.5% and NMT 27.5% of clioquinol (C₉H₅ClINO).

Clioquinol	250 g
Lactic Acid	25 g
Zinc Stearate	200 g
Lactose	525 g
To make	1000 g

Mix the *Lactic Acid* with *Lactose*. Then add *Clioquinol* and *Zinc Stearate* to the mixture, and mix.

IDENTIFICATION

- A.**
Sample: A quantity of Topical Powder equivalent to 30 mg of clioquinol
Analysis: Place the *Sample* in a glass-stoppered, 50-mL conical flask, add 20 mL of 1 N sulfuric acid, and shake for 5 min. Filter, and transfer 5 mL of the filtrate to a glass-stoppered test tube. Add 5 drops of potassium dichromate TS and 2 mL of chloroform, and shake well.
Acceptance criteria: A red-violet color develops in the chloroform layer.

ASSAY

- PROCEDURE**
Standard solution: 5 µg/mL of [USP Clioquinol RS](#) in 3 N hydrochloric acid
Sample solution: Transfer a quantity of Topical Powder equivalent to 50 mg of clioquinol to a 200-mL volumetric flask. Add 100 mL of 3 N hydrochloric acid, and shake by mechanical means for 15 min. Dilute with 3 N hydrochloric acid to volume. Filter a portion of the solution. Dilute 4.0 mL of the filtrate with 3 N hydrochloric acid to 200.0 mL, and mix.
Blank: 3 N hydrochloric acid
Instrumental conditions
Mode: UV
Analytical wavelength: 267 nm
Cell: 1 cm
Analysis
Samples: *Standard solution* and *Sample solution*
Determine the absorbances of the *Standard solution* and the *Sample solution* at the wavelength of maximum absorbance. Calculate the percentage of clioquinol (C₉H₅ClINO) in the portion of Topical Powder taken:

Result = (A_U/A_S) × (C_S/C_U) × 100

- A_U = absorbance of the *Sample solution*
- A_S = absorbance of the *Standard solution*
- C_S = concentration of clioquinol in the *Standard solution* (µg/mL)
- C_U = nominal concentration of clioquinol in the *Sample solution* (µg/mL)

Acceptance criteria: 22.5%–27.5%

ADDITIONAL REQUIREMENTS

- **PACKAGING AND STORAGE:** Package in well-closed, light-resistant containers.
- **USP REFERENCE STANDARDS** (11).
[USP Clioquinol RS](#)

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

Topic/Question	Contact	Expert Committee
COMPOUND CLIOQUINOL TOPICAL POWDER	Brian Serumaga Science Program Manager	CMP2020 Compounding 2020

Chromatographic Database Information: [Chromatographic Database](#)

Most Recently Appeared In:
Pharmacopeial Forum: Volume No. Information currently unavailable

Current DocID: GUID-AFFDB1DB-485A-4C61-9956-B1A622CBAFC9_1_en-US

DOI: https://doi.org/10.31003/USPNF_M18323_01_01

DOI ref: [o78n9](#)

OFFICIAL