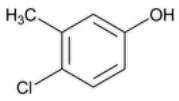
Status: Currently Official on 14-Feb-2025
Official Date: Official Prior to 2013
Document Type: NF Monographs
DocId: GUID-948737FB-420A-4676-90DD-039C29697D5F_1_en-US
DOI: https://doi.org/10.31003/USPNF_M15830_01_01
DOI Ref: f1vx4

Chlorocresol



C_7H_7ClO 142.58

Phenol, 4-chloro-3-methyl-;

4-Chloro-*m*-cresol CAS RN®: 59-50-7.

DEFINITION

Chlorocresol contains NLT 99.0% and NMT 101.0% of C_7H_7ClO (4-chloro-3-methylphenol).

IDENTIFICATION

- **A.**

  Sample solution: Dissolve 40 mg of Chlorocresol in 10 mL of water.

  Analysis: Add 1 drop of ferric chloride TS to the *Sample solution*.

  Acceptance criteria: A blue color develops.

- **B.**

  Sample: 50 mg

  Analysis: Transfer the *Sample* to a crucible, add 500 mg of anhydrous sodium carbonate, and mix. Heat the mixture until fused. Cool, add 5 mL of water, and boil. Acidify with 1 mL of nitric acid, filter, and add 1 mL of silver nitrate TS to the filtrate.

  Acceptance criteria: A white precipitate is formed.

ASSAY

- **Procedure**

  Sample: 70 mg

  Titrimetric system

  (See *Titrimetry* ⟨541⟩.)

  Mode: Residual titration

  Titrant: 0.1 N sodium thiosulfate VS

  Endpoint detection: Visual

  Analysis: Transfer the *Sample* to an iodine flask, add 30 mL of glacial acetic acid, 25.0 mL of 0.1 N bromine VS, 10 mL of potassium bromide solution (150 mg/mL), and 10 mL of hydrochloric acid.

  Immediately insert the stopper, and allow to stand for 15 min, protected from light. Quickly add 10 mL of potassium iodide solution (100 mg/mL) and 100 mL of water, taking precautions against the escape of bromine vapor. Immediately insert the stopper, and shake the mixture thoroughly. Remove the stopper, and rinse it and the neck of the flask with a small quantity of water so that the washing flows into the flask. Add 1 mL of chloroform, and shake the mixture thoroughly.

  Titrate the liberated iodine with *Titrant*, adding 3 mL of starch TS as the endpoint is approached. Perform a blank determination. Each mL of 0.1 N bromine VS is equivalent to 3.565 mg of C_7H_7ClO (4-chloro-3-methylphenol).

  Acceptance criteria: 99.0%–101.0%

SPECIFIC TESTS

- **Melting Range or Temperature** ⟨741⟩**:** 63°–66°

- **Limit of Nonvolatile Residue**

  Sample: 1.0 g

  Analysis: Heat the *Sample* in a tared crucible on a steam bath until it has evaporated, and dry the residue at 105° for 1 h.

  Acceptance criteria: NMT 0.1%

- **Completeness of Solution**

  Sample: 1 g

  Analysis: Transfer the *Sample* to a test tube, add 0.4 mL of alcohol, and shake.

Acceptance criteria: The solution is complete.

ADDITIONAL REQUIREMENTS

• **Packaging and Storage:** Preserve in tight, light-resistant containers.

Auxiliary Information - Please check for your question in the FAQs before contacting USP.

Topic/Question	Contact	Expert Committee
CHLOROCRESOL	Documentary Standards Support	SE2020 Simple Excipients

Chromatographic Database Information: Chromatographic Database

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

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