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Camphorated Parachlorophenol

DEFINITION

Camphorated Parachlorophenol is a triturated mixture that contains NLT 33.0% and NMT 37.0% of parachlorophenol (C_6H_5ClO) and NLT 63.0% and NMT 67.0% of camphor ($C_{10}H_{16}O$). The sum of the percentages of parachlorophenol and camphor is NLT 97.0% and NMT 103.0%.

ASSAY

• **Parachlorophenol**

Sample: 1 g

Analysis: Add the *Sample* to a wide-mouth conical flask. Add a few glass beads, 6 mL of sodium hydroxide solution (1 in 2), and 130 mL of water. Heat the solution to boiling, add 70 mL of potassium permanganate solution (3 in 50), and continue to boil for 20 min. To the hot solution add 40 mL of 0.1 N silver nitrate. Add 50 mL of 18 N sulfuric acid, and sodium sulfite crystals, in divided portions and with swirling until the permanganate color is discharged and no manganese dioxide remains. Boil until the vapors are no longer acid to litmus, keeping the volume nearly constant by the addition of water. Add 5 mL of nitric acid, and continue to boil for 5 min. Cool, and collect the precipitate on a tared filtering crucible, wash well with water, then with 10 mL of alcohol. Dry at 105° for 1 h, cool, and weigh. Each 1.000 g of the silver chloride so obtained is equivalent to 897.0 mg of parachlorophenol (C_6H_5ClO).

Acceptance criteria

Parachlorophenol: 33.0%–37.0% of parachlorophenol (C_6H_5ClO)

Total: The sum of the percentages of parachlorophenol and camphor is 97.0%–103.0%.

• **Camphor**

Sample solution: Transfer about 300 mg of Camphorated Parachlorophenol to a 200-mL pressure bottle containing 50 mL of freshly prepared dinitrophenylhydrazine TS.

Analysis: Close the pressure bottle, immerse it in a water bath, and maintain it at about 75° for 4 h. Cool to room temperature, then transfer the contents to a beaker with the aid of 100 mL of 3 N sulfuric acid and allow it to stand overnight. Collect the precipitate on a tared filtering crucible, wash with 100 mL of 3 N sulfuric acid and then with 75 mL of cold water, in divided portions, to remove the acid. Dry at 80° for 2 h, cool, and weigh. The weight of the precipitate so obtained, multiplied by 0.4581, represents the weight of camphor ($C_{10}H_{16}O$) in the sample taken.

Acceptance criteria

Camphor: 63.0%–67.0% of camphor ($C_{10}H_{16}O$)

Total: The sum of the percentages of parachlorophenol and camphor is 97.0%–103.0%.

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
CAMPHORATED PARACHLOROPHENOL	Documentary Standards Support	SM12020 Small Molecules 1
REFERENCE STANDARD SUPPORT	RS Technical Services RSTECH@usp.org	SM12020 Small Molecules 1

Chromatographic Database Information: Chromatographic Database

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