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Ammoniated Mercury

$Hg(NH_2)Cl$ 252.07

Mercury amide chloride CAS RN®: 10124-48-8; UNII: JD546Z56F0.

DEFINITION

Ammoniated Mercury contains NLT 98.0% and NMT 100.5% of ammoniated mercury [$Hg(NH_2)Cl$].

IDENTIFICATION

- **A.**

  Sample: 0.1 g

  Analysis: Place the *Sample* in a cold solution of 1 g of sodium thiosulfate in 2 mL of water.

  Acceptance criteria: The *Sample* is soluble, with the evolution of ammonia. When this solution is heated gently, a rust-colored mixture is formed, from which a red precipitate is obtained on centrifugation. If the solution is strongly heated, a black mixture forms.

- **B.**

  Sample: A suitable quantity

  Analysis: Heat the *Sample* with 1 N sodium hydroxide.

  Acceptance criteria: The solution becomes yellow, and ammonia is evolved.

- **C.**

  Sample solution: A suitable quantity in warm acetic acid

  Analysis: *Sample solution* with potassium iodide TS

  Acceptance criteria: The solution yields a red precipitate that is soluble in an excess of the reagent. The solution yields a white precipitate with silver nitrate TS.

ASSAY

- **Procedure**

  Sample solution: Mix 0.25 g of Ammoniated Mercury with 10 mL of water. Add 3 g of potassium iodide, mix occasionally until dissolved, add about 40 mL of water, and add methyl red TS.

  Analysis: Titrate with 0.1 N hydrochloric acid VS. Perform a blank determination, and make any necessary correction. Each mL of 0.1 N hydrochloric acid is equivalent to 12.60 mg of ammoniated mercury [$Hg(NH_2)Cl$].

  Acceptance criteria: 98.0%–100.5%

IMPURITIES

- **Residue on Ignition (281):** NMT 0.2%
- **Mercurous Compounds**

  Sample: 2.5 g

  Analysis: Dissolve the *Sample* in 25 mL of warm hydrochloric acid. Pass through a tared filtering crucible, wash with water, and dry at 60° to constant weight.

  Acceptance criteria: NMT 0.2%; the weight of the residue does not exceed 5 mg.

ADDITIONAL REQUIREMENTS

- **Packaging and Storage:** Preserve in well-closed, light-resistant containers.

Topic/Question	Contact	Expert Committee
AMMONIATED MERCURY	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

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

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