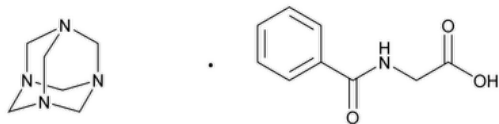


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Methenamine Hippurate



$C_6H_{12}N_4 \cdot C_9H_9NO_3$

319.36

Glycine, *N*-benzoyl, compd. with 1,3,5,7-tetraazatricyclo[3.3.1.1^{3,7}]decane (1:1);

Hexamethylenetetramine monohippurate CAS RN[®]: 5714-73-8; UNII: M329791L57.

DEFINITION

Methenamine Hippurate, dried under vacuum at 60° for 1 h, contains NLT 95.5% and NMT 102.0% of methenamine hippurate ($C_6H_{12}N_4 \cdot C_9H_9NO_3$), and contains NLT 54.0% and NMT 58.0% of hippuric acid ($C_9H_9NO_3$).

IDENTIFICATION

Change to read:

- A. [▲ SPECTROSCOPIC IDENTIFICATION TESTS \(197\), Infrared Spectroscopy: 197M ▲](#) (CN 1-MAY-2020)

ASSAY

• PROCEDURE

Sample solution: Dissolve 700 mg of Methenamine Hippurate in 50 mL of glacial acetic acid.

Titrimetric system

Mode: Direct titration

Titrant: 0.1 N perchloric acid VS

Endpoint detection: Potentiometric

Analysis: Titrate with *Titrant*. Perform a blank determination, and make any necessary correction. Each mL of 0.1 N perchloric acid is equivalent to 31.94 mg of methenamine hippurate ($C_6H_{12}N_4 \cdot C_9H_9NO_3$).

Acceptance criteria: 95.5%–102.0% on the previously dried basis

OTHER COMPONENTS

• CONTENT OF HIPPURIC ACID

Sample solution: Transfer 1 g to a 250-mL conical flask, and add 50 mL of water. When the solution is complete, add phenolphthalein TS.

Titrimetric system

Mode: Direct titration

Titrant: 0.1 N sodium hydroxide VS

Endpoint detection: Visual

Analysis: Titrate with *Titrant*. Each mL of 0.1 N sodium hydroxide is equivalent to 17.92 mg of hippuric acid ($C_9H_9NO_3$).

Acceptance criteria: 54.0%–58.0%

IMPURITIES

- [RESIDUE ON IGNITION \(281\)](#): NMT 0.1%

• SULFATE

Sample solution: 200 mg in 10 mL of water

Analysis: Add 5 drops of 3 N hydrochloric acid and 5 drops of barium chloride TS.

Acceptance criteria: No turbidity appears within 1 min.

SPECIFIC TESTS

- [LOSS ON DRYING \(731\)](#)

Analysis: Dry under vacuum at 60° for 1 h.

Acceptance criteria: NMT 1.0%

ADDITIONAL REQUIREMENTS

- **PACKAGING AND STORAGE:** Preserve in well-closed containers.
- **USP REFERENCE STANDARDS (11).**
[USP Methenamine Hippurate RS](#)

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

Topic/Question	Contact	Expert Committee
METHENAMINE HIPPURATE	Documentary Standards Support	SM12020 Small Molecules 1

Chromatographic Database Information: [Chromatographic Database](#)

Most Recently Appeared In:

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