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Tetramethylammonium Hydroxide,

(CH₃)₄NOH 91.15 CAS RN®: 75-59-2.—Available as an approximately 10% or approximately 25% aqueous solution, or as the crystalline pentahydrate. Is clear and colorless. Tetramethylammonium hydroxide is a stronger base than ammonia and rapidly absorbs carbon dioxide from the air. Store in tight containers.

Assay: Accurately weigh a glass-stoppered flask containing about 15 mL of water. Add a quantity of a solution of tetramethylammonium hydroxide, equivalent to about 200 mg of (CH₃)₄NOH, and again weigh. Add methyl red TS, and titrate the solution with 0.1 N hydrochloric acid

VS: each mL of 0.1 N hydrochloric acid is equivalent to 9.115 mg of (CH₃)₄NOH.

Residue on Evaporation: Evaporate 5 mL of solution on a steam bath, and dry at 105° for 1 hour: the weight of the residue is equivalent to not more than 0.02% of the weight of the test specimen.

Ammonia and Other Amines: Accurately weigh a quantity of solution, corresponding to about 300 mg of (CH₃)₄NOH, in a low-form weighing bottle tared with 5 mL of water. Add a slight excess of 1 N hydrochloric acid (about 4 mL), evaporate on a steam bath to dryness, and dry at 105° for 2 hours: the weight of the tetramethylammonium chloride so obtained, multiplied by 0.8317, represents the quantity, in mg, of (CH₃)₄NOH in the portion of test specimen taken and corresponds to within 0.2% above or below that found in the Assay.

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

Topic/Question	Contact	Expert Committee
TETRAMETHYLAMMONIUM HYDROXIDE	Margareth R.C. Marques Principal Scientific Liaison	HDQ Headquarters

Most Recently Appeared In:

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