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Change to read:

0.1 M Tetramethylammonium Bromide VS

▲▲ (USP 1-Dec-2022)

Dissolve 15.41 g of tetramethylammonium bromide▲$(CH_3)_4NBr$▲ (USP 1-Dec-2022) in water to make 1000 mL.

Standardization

▲See *Volumetric Solutions, 1. Introduction*.

See *Titrimetry ⟨541⟩*.

Standardize by one of the following procedures. [Note—Other standardization procedures may be used. See *Volumetric Solutions, 2. Preparation and Standardization, 2.3 Standardization*.]

Standardization with visual endpoint:▲ (USP 1-Dec-2022) Transfer an accurately measured volume of about 40 mL of the solution to a beaker, add 10 mL of diluted nitric acid and 50.0 mL of 0.1 N silver nitrate VS, and mix. Add 2 mL of ferric ammonium sulfate TS, and titrate the excess silver nitrate with 0.1 N ammonium thiocyanate VS.

$$\blacktriangle M = \frac{\left(50.0 - \frac{\text{ml } NH_4SCN \times N\ NH_4SCN}{N\ AgNO_3}\right) \times N\ AgNO_3}{\text{ml } (CH_3)_4NBr}$$

Standardization with potentiometric endpoint: Transfer an accurately measured volume of about 10 mL of the solution to a flask, add 2 mL of diluted nitric acid, and titrate with 0.1 N silver nitrate VS using a combined silver electrode.

$$M = \frac{\text{ml } AgNO_3 \times N\ AgNO_3}{\text{ml } (CH_3)_4NBr}$$ ▲ (USP 1-Dec-2022)

[Note—If this volumetric solution is used in a qualitative application such as pH adjustment, dissolution medium, or diluent, its standardization is not required.]

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

Topic/Question	Contact	Expert Committee
0.1 M TETRAMETHYLAMMONIUM BROMIDE VS	Margareth R.C. Marques Principal Scientific Liaison	HDQ Headquarters

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