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Change to read:

▲0.004 M Benzethonium Chloride VS ▲ (USP 1-Aug-2020)

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Dissolve 1.792 g of [benzethonium chloride](#), previously dried at 100°–105° to constant weight, in [water](#) to make 1000 mL. ▲ [NOTE—This solution is commercially available ready to be used. Use a suitable grade.]

Standardization

See [Volumetric Solutions, 1. Definitions](#).

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-Aug-2020) Dissolve 0.350 g of the dried [benzethonium chloride](#) in 30 mL of [glacial acetic acid](#) and add 6 mL of [mercuric acetate TS](#). Titrate with [0.1 N perchloric acid](#) ▲ in [glacial acetic acid](#) ▲ (USP-1-Aug-2020) VS, using 0.05 mL of [crystal violet TS](#) as an indicator. Carry out a blank titration. One mL of 0.1 N perchloric acid VS is equivalent to 44.81 mg of benzethonium chloride (C₂₇H₄₂ClNO₂). ▲ Calculate the molarity of the volumetric solution from the content of benzethonium chloride in the dried benzethonium chloride, as determined through the titration above.

Standardization with potentiometric endpoint: Accurately measure 2.0 mL of standardized [0.02 M sodium tetraphenylboron VS](#) into a titration vessel, add 50 mL of [water](#) and 1 mL of [1 N sodium hydroxide VS](#). Titrate with the benzethonium chloride solution using a surfactant electrode suitable for non-ionic surfactants.

$$M = \frac{\text{mL NaB(C}_6\text{H}_5)_4 \times M \text{ NaB(C}_6\text{H}_5)_4}{\text{mL benzethonium chloride}}$$

[NOTE—If this volumetric solution is used in a qualitative application such as pH adjustment, dissolution medium, or diluent, its standardization is not required.] ▲ (USP 1-Aug-2020)

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

Topic/Question	Contact	Expert Committee
0.004 M BENZETHONIUM CHLORIDE VS	Margareth R.C. Marques Principal Scientific Liaison	HDQ Headquarters

Most Recently Appeared In:

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