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Add the following:

▲0.1 N Ceric Ammonium Sulfate VS

Transfer 65 g of [ceric ammonium sulfate](#) to a 1000-mL volumetric flask containing a mixture of 30 mL of [sulfuric acid](#) and 500 mL of [water](#). Swirl until dissolved. Cool and dilute with [water](#) to volume.

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: Transfer 25 mL of the ceric ammonium sulfate solution into an Erlenmeyer flask, and add 2 g of [potassium iodide](#) and about 150 mL of [water](#). Mix well. Add 1 mL of [starch TS](#) and titrate immediately with freshly standardized [0.1 N sodium thiosulfate VS](#) until the blue color disappears.

$$N = \frac{\text{mL Na}_2\text{S}_2\text{O}_3 \times N \text{ Na}_2\text{S}_2\text{O}_3}{\text{mL Ce}(\text{NH}_4)_4(\text{SO}_4)_4}$$

Standardization with potentiometric endpoint: Transfer 10 mL of the ceric ammonium sulfate solution into an Erlenmeyer flask, and add 2 g of [potassium iodide](#) and about 100 mL of [water](#). Mix well. Immediately, titrate potentiometrically with freshly standardized [0.1 N sodium thiosulfate VS](#) using a combined platinum electrode.

$$N = \frac{\text{mL Na}_2\text{S}_2\text{O}_3 \times N \text{ Na}_2\text{S}_2\text{O}_3}{\text{mL Ce}(\text{NH}_4)_4(\text{SO}_4)_4}$$

[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-Dec-2021)

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

Topic/Question	Contact	Expert Committee
0.1 N CERIC AMMONIUM SULFATE VS	Margareth R.C. Marques Principal Scientific Liaison	HDQ Headquarters

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