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0.05 M Zinc Sulfate VS

Dissolve 14.4 g of [zinc sulfate heptahydrate](#) in [water](#) to make 1 L.

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: Accurately measure about 10 mL of [0.05 M edetate disodium VS](#) into a 125-mL conical flask, and add, in the order given, 10 mL of [acetic acid-ammonium acetate buffer TS](#), 50 mL of [alcohol](#), and 2 mL of [dithizone TS](#). Titrate with the zinc sulfate solution to a clear rose-pink color.

$$M = \frac{\text{mL edetate disodium} \times M \text{ edetate disodium}}{\text{mL ZnSO}_4}$$

Standardization with potentiometric endpoint: Accurately measure about 10 mL of [0.05 M edetate disodium VS](#) into a 125-mL conical flask, and add, in the order given, 10 mL of [acetic acid-ammonium acetate buffer TS](#), 50 mL of [alcohol](#), and 1 mL of [Copper-EDTA complex solution](#). Titrate with the zinc sulfate solution using a copper ion-selective electrode.

$$M = \frac{\text{mL edetate disodium} \times M \text{ edetate disodium}}{\text{mL ZnSO}_4}$$

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

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

Topic/Question	Contact	Expert Committee
0.05 M ZINC SULFATE VS	Margareth R.C. Marques Principal Scientific Liaison	HDQ Headquarters

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