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Change to read:

0.02 M Sodium Tetraphenylboron VS

▲ (USP 1-Aug-2024)

Dissolve an amount of [sodium tetraphenylborate](#), equivalent to 6.845 g of $\text{NaB}(\text{C}_6\text{H}_5)_4$, in [water](#) to make 1000 mL.

▲[NOTE—Prepare this solution just before use.]

Standardization

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

See [Titrmetry \(541\)](#).

Standardize by one of the following procedures. [NOTE—Other standardization procedures may be used. See [Volumetric Solutions, 2. Preparation and Standardization, 2.3 Standardization](#).]▲ (USP 1-Aug-2024)

Standardization ▲by gravimetry:▲ (USP 1-Aug-2024) Pipet two 75-mL portions of the solution into separate beakers, and to each add 1 mL of [diluted acetic acid](#) and 25 mL of [water](#). To each beaker add, slowly and with constant stirring, 25 mL of [potassium biphthalate](#) solution (1 in 20), and allow to stand for 2 h. Filter one of the mixtures through a ▲G4 (pore size 5–15 μm) sintered crucible,▲ (USP 1-Aug-2024) and wash the precipitate with cold [water](#). Transfer the precipitate to a container, add 50 mL of [water](#), shake intermittently for 30 min, filter, and use the filtrate as the saturated potassium tetraphenylborate solution in the following standardization procedure. Filter the second mixture through a tared ▲G4 (pore size 5–15 μm) sintered crucible,▲ (USP 1-Aug-2024) and wash the precipitate with three 5-mL portions of saturated potassium tetraphenylborate solution. Dry the precipitate at 105° for 1 h. Each gram of potassium tetraphenylborate (KTPB) is equivalent to 955.1 mg of sodium tetraphenylboron.

$$M = \frac{\text{g KTPB} \times 0.9551}{342.22 \times 0.075 \text{ L}}$$

▲**Standardization with potentiometric endpoint:** Accurately weigh about 50 mg of [potassium biphthalate](#), previously crushed lightly and dried at 120° for 2 h, and dissolve in 75 mL of [carbon dioxide-free water](#). Adjust to pH 6–8 with [1 N sodium hydroxide solution](#). Titrate with sodium tetraphenylboron solution using a combined potassium ion selective electrode.

$$\text{▲ (USP 1-Aug-2024)} \quad M = \frac{\text{mg of potassium biphthalate}}{204.22 \times \text{mL sodium tetraphenylboron}}$$

[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
0.02 M SODIUM TETRAPHENYLBORON VS	Margareth R.C. Marques Principal Scientific Liaison	HDQ Headquarters

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