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Change to read:

1 N Sodium Hydroxide VS

Dissolve 162 g of sodium hydroxide in 150 mL of carbon dioxide-free water, cool the solution to room temperature, and filter through hardened filter paper. ▲Prepare the **1 N solution** by transfering▲ (USP 1-May-2024) 54.5 mL of the clear filtrate to a tight, polyolefin container, and dilute with carbon dioxide-free water to 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: Accurately weigh about 5 g of potassium biphthalate, previously crushed lightly and dried at 120° for 2 h, and dissolve in 75 mL of carbon dioxide-free water. Add 2 drops of phenolphthalein TS, and titrate with the sodium hydroxide solution to the production of a permanent pink color. Each 204.22 mg of potassium biphthalate is equivalent to 1 mL of 1 N sodium hydroxide.

$$N = \frac{\text{g } KHC_8H_4O_4 \times (\text{Assay}/100)}{0.20422 \times \text{mL NaOH solution}}$$

where Assay is the content/potency of potassium biphthalate.

Standardization with potentiometric endpoint: Accurately weigh about 2.5 g of potassium biphthalate, previously crushed lightly and dried at 120° for 2 h, and dissolve in 75 mL of carbon dioxide-free water. Titrate with the sodium hydroxide solution using a combined pH electrode. Each 204.22 mg of potassium biphthalate is equivalent to 1 mL of 1 N sodium hydroxide.

$$N = \frac{\text{g } KHC_8H_4O_4 \times (\text{Assay}/100)}{0.20422 \times \text{mL NaOH solution}}$$

where Assay is the content/potency of potassium biphthalate.

[Note—(1) Solutions of alkali hydroxides absorb carbon dioxide when exposed to air. They should be preserved in bottles having well-fitted, suitable stoppers, provided with a tube filled with a mixture of sodium hydroxide and lime (soda-lime tubes) so that air entering the container must pass through this tube, which will absorb the carbon dioxide. (2) Prepare solutions of lower concentration (e.g., 0.1 N, 0.01 N) by quantitatively diluting accurately measured volumes of the 1 N solution with sufficient carbon dioxide-free water to yield the desired concentration.]

Restandardize the solution frequently.

[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
1 N SODIUM HYDROXIDE VS	Margareth R.C. Marques Principal Scientific Liaison	HDQ Headquarters

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