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Sodium Azide,

NaN₃ 65.01 CAS RN[®]: 26628-22-8.—White powder.

Assay

[CAUTION—Sodium azide is a potent poison. Its conjugate acid HN₃ is more toxic than hydrogen cyanide and is readily liberated from neutral aqueous solutions. Contact of NaH₃ or hydrazoic acid (HN₃) with certain metals may produce explosive salts. Work in a well-ventilated hood, and handle the sample with care.]

Dissolve about 100 mg, accurately weighed, in 50 mL of water, and add 3 drops of phenolphthalein. Adjust the pH, if necessary, to 7.0, and add 35.0 mL of 0.1 N perchloric acid. Pipet, while stirring, 2.5 mL of 1.0 M sodium nitrite into the solution, and stir for 15 seconds. Titrate rapidly to the phenolphthalein endpoint with 0.1 N sodium hydroxide. The endpoint should be reached in less than 4 minutes after addition of perchloric acid because HN₃ is readily volatile. Calculate the percentage of azide by the formula:

$$[(N_p)(V_p) - (N_s)(V_s)](65.01)(100)/2C$$

where N_p is the normality of perchloric acid solution; V_p is the volume of perchloric acid, in mL, taken; N_s is the normality of sodium hydroxide solution; V_s is the volume, in mL, of sodium hydroxide taken; 65.01 is the molecular weight of sodium azide; and C is the weight, in mg, of sodium azide. Not less than 98.5% of NaN₃ is found.

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

Topic/Question	Contact	Expert Committee
SODIUM AZIDE	Margareth R.C. Marques Principal Scientific Liaison	HDQ Headquarters

Most Recently Appeared In:

Pharmacopeial Forum: Volume No. Information currently unavailable

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