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Product Information

SODIUM AZIDE

Product Number **S 2002**

Store at Room Temperature

Replacement for Product Code 19,993-1

CAS #: 26628-22-8

Product Description



Molecular weight: 65.0

pK = 4.8

Melting point: Upon heating decomposes to sodium and nitrogen¹

Sodium azide is a commonly used preservative for laboratory reagents. Typical effective concentrations used by Sigma range from 0.02% to 0.1% (w/v).

Sodium azide is also an inhibitor of peroxidase², myeloperoxidase³, superoxide dismutase⁴, galactose oxidase⁵, catalase^{6,7}, and O₂ evolution in photosynthesis⁸.

The mechanism of its inhibition and toxicity may be due to metal ion complexation and displacement from enzymes.^{5,9}

Precautions and Disclaimer

Sodium Azide is considered highly toxic and highly reactive under certain conditions. Read the Material Safety Data Sheet carefully before use.

Preparation Instructions

Sigma tests the solubility of sodium azide at 50 mg/ml in water yielding a clear-colorless solution. In aqueous acidic solutions sodium azide is converted to hydrazoic acid, a volatile gas.¹

References

1. *The Merck Index*, 12th ed., #8724 (1996).
2. Ortiz de Montellano, P.R. et al., *Biochemistry*, 27, 5470, (1988).
3. Davies, B. and Edwards, S.W., *Biochem. J.*, 258, 801 (1989).
4. Rigo, A. et al., *Anal. Biochem.*, 68, 1 (1976).
5. Mendonca, M. H. and Zancan, G. T., *Arch. Biochem. Biophys.*, 252, 507 (1987).
6. Lieber, C.S. and DeCarli, L.M., *J. Biol. Chem.*, 245, 2505 (1970).
7. Jacob, G.S. and Orme-Johnson, W.H., *Biochem.*, 18, 2967 (1979).
8. *Data for Biochemical Research*, 3rd ed., p. 306-307 (1986).
9. Friend, S.H. et al. *Biochemistry*, 19, 3039 (1980).

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