

Product Information

Sodium borohydride

Product Number **S 9125**

Store at Room Temperature

Product Description

Molecular Formula: NaBH₄

Molecular Weight: 37.83

CAS Number: 16940-66-2

Sodium borohydride is a white crystalline powder, packaged in a glass bottle. The bottle is packaged in a can; the bottle is surrounded by packaging material, which has the appearance of small white beads.

Sodium borohydride is a very strong reducing agent used in organic and biochemical reactions.

Sodium borohydride has been used in the study of glycoprotein receptors. Cell monolayers were treated with sodium metaperiodate in sodium acetate to disrupt surface carbohydrates. Cells were then rinsed with PBS, and reduced with 50 mM sodium borohydride prepared in PBS (pH 7.4) for 30 minutes at room temperature.¹

The half-reaction for borohydride:



The purity of sodium borohydride may be determined by a titrimetric assay.³

Precautions and Disclaimer

For Laboratory Use Only. Not for drug, household or other uses.

Preparation Instructions

Sodium borohydride is soluble in water, but it reacts with water. When dissolved in water, hydrogen gas is formed as a reaction by-product. Hydrogen gas is extremely flammable.

Storage/Stability

Aqueous solutions of sodium borohydride (440 mg/ml) are most stable in the presence of small amounts of sodium hydroxide (0.2%); solutions can be kept for several days.⁴

References

1. St. Geme, J.W. III, The HMW1 adhesin of nontypeable *Haemophilus influenzae* recognizes sialylated glycoprotein receptors on cultured human epithelial cells. *Infection and Immunity*, **62(9)**, 3881-3889 (1994).
2. CRC Handbook of Chemistry and Physics, 74th ed., p. 8-31.
3. Anal. Chem., **24**, 1842 (1952).
4. The Merck Index, 11th ed., p.1358, Entry# 8537.

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