

Material Safety Data Sheet / Safety Data sheet

Sodium Borohydride

Section 1: Chemical Product Identifier and Synonyms

Product Name: Sodium Borohydride

UN Number: Not available.

CAS Number: 16940-66-2

Synonym: Sodium Tetrahydridoborate, Sodium Tetrahydroborate, Sodium Boranuide

Chemical Formula: NaBH₄

Section 2: Composition and Information on Ingredients

Composition

Name	CAS Number:	% By Weight
Sodium Borohydride	14940-66-2	>99.8

Toxicology Data On Ingredients: Sodium Borohydride LD50: Not Available. LC50: Not Available

Section 3: Hazards Identification

Potential Acute Health Effects:

Slightly hazardous in case of eye contact (irritant), of ingestion, of inhalation.

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact during pregnancy/while nursing.

Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area.

Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. Repeated or prolonged exposure is not known to aggravate medical condition.

Section 4: First Aid Measures

Eye Contact:

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.

Skin Contact:

Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.

Inhalation:

Move to fresh air. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required. If not breathing, give artificial respiration.

Ingestion:

Do not induce vomiting. Call a physician or Poison Control Center immediately.

Section 5: Fire and Explosion Data

Flammability of the Product: This product is flammable.

Auto-Ignition Temperature: Not available.

Flash Points: Not applicable.

Flammable Limits: Not applicable.

Products of Combustion: Not available.

Fire Hazards in Presence of Various Substances: Not applicable.

Explosion Hazards in Presence of Various Substances: Not available.

Risks of explosion of the product in presence of mechanical impact: Not available.

Risks of explosion of the product in presence of static discharge: Not available.

Fire Fighting Media and Instructions: CO₂, dry chemical, dry sand, alcohol-resistant foam.

Special Remarks on Fire Hazards: Not available.

Special Remarks on Explosion Hazards: Not available.

Section 6: Accidental Release Measures

Small Spill:

Ensure adequate ventilation. Use personal protective equipment. Avoid dust formation. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas.

Large Spill:

Do not expose spill to water. Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation.

Section 7: Handling and Storage

Precautions:

Use only under a chemical fume hood. Wear personal protective equipment. Avoid dust formation. Do not get in eyes, on skin, or on clothing. Do not ingest. Do not breathe vapours/dust. Do not allow contact with water.

Storage:

Keep containers tightly closed in a dry, cool and well-ventilated place. Corrosives area. Keep away from water. Do not store in aluminium containers.

Section 8: Exposure Controls / Personal Protection

Engineering Controls:

Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal Protection:

Safety glasses. Gloves. Protective clothing. Dust production: dust mask with filter type P3.

Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits:

Consult local authorities for acceptable exposure limits.

Section 9: Physical and Chemical Properties

Physical state and appearance: Granular Powder.

Odour: Odourless.

Taste: Not available.

Molecular Weight: 37.83 g/mole

Colour: White

pH (1% soln/water): approx 11 10 g/l aq.solution

Boiling Point: Not available.

Melting Point: 360 °C / 680 °F

Critical Temperature: Not available.

Specific Gravity: Not available. (Water = 1)

Vapour Pressure: Not available.

Vapour Density: Not available.

Volatility: Not available.

Odour Threshold: Not available.

Water/Oil Dist. Coeff.: Not available.

Ionicity (in Water): Not available.

Dispersion Properties: Not available.

Solubility: Not available.

Section 10: Stability and Reactivity Data

Stability: The product is stable under normal conditions.

Instability Temperature: Not available.

Conditions of Instability: Moisture.

Incompatibility with various substances: Water reactive. Hygroscopic.

Strong oxidizing agents, Aldehydes, Ketones, Acids, Aluminium

Corrosivity: Not available.

Special Remarks on Reactivity: Not available.

Special Remarks on Corrosivity: Not available.

Polymerization: Not available.

Section 11: Toxicological Information

Routes of Entry: Eye contact. Inhalation. Ingestion.

Toxicity to Animals: (LD50): Not available. LC50: Not available.

Chronic Effects on Humans: Not available.

Other Toxic Effects on Humans: Slightly hazardous in case of ingestion, of inhalation. May cause harm to breastfed babies.

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans: Not available.

Special Remarks on other Toxic Effects on Humans: Not available.

Section 12: Ecological Information

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation: Not available.

Toxicity of the Products of Biodegradation: The products of degradation are as toxic as the original product.

Special Remarks on the Products of Biodegradation: Not available.

Section 13: Disposal Information

Waste Disposal: Dispose of in accordance with local regulations

Section 14: Transport Information

DOT Classification: Not available.

Identification: Sodium Borohydride

Special Provisions for Transport: Not available.

Section 15: Regulatory Information

Regulations: Labelling according to Regulation (EC) No 1272/2008.

Section 16: Other Information

The information supplied in this Safety Data Sheet is designed only as guidance for the safe use, storage and handling of the product. This information is correct to the best of our knowledge and belief at the date of publication however no guarantee is made to its accuracy. This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials. The author will not be held liable for any damage or injury caused by this product and does not obviate the requirement for end users to carry out their own workplace and specific use risk assessment.

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