

Material Safety Data Sheet / Safety Data sheet

Potassium Borohydride

Section 1: Chemical Product Identifier and Synonyms

Product Name: Potassium Borohydride

UN Number: 1870

CAS Number: 13762-51-1

Synonym: Borate(1-), tetrahydro-, potassium; Potassium borohydrate; Potassium tetrahydroborate

Chemical Formula: KBH_4

Section 2: Composition and Information on Ingredients

Composition

Name	CAS Number:	% By Weight
Potassium Borohydride	13762-51-1	>98

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

Section 3: Hazards Identification

Potential Acute Health Effects:

In contact with water releases flammable gas.

Toxic if swallowed.

Toxic in contact with skin.

Causes severe skin burns and eye damage.

Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC - EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. Breathing difficulties.

Causes- burns by all exposure routes. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Section 4: First Aid Measures

Eye Contact:

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

Skin Contact:

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Immediate medical attention is required.

Inhalation:

Remove from exposure, lie down. Move to fresh air. If not breathing, give artificial respiration. Obtain medical attention.

Ingestion:

Do not induce vomiting. Call a physician immediately. Clean mouth with water.

Most important symptoms and effects:

Causes burns by all exposure routes. Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation Notes to Physician

Section 5: Fire and Explosion Data

Flammability of the Product: Not available.

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: Not applicable.

Special Remarks on Fire Hazards: Not available.

Special Remarks on Explosion Hazards: Not available.

Section 6: Accidental Release Measures

Small Spill:

Use personal protective equipment. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation. Remove all sources of ignition. Take off contaminated clothing and wash before reuse

Large Spill:

In case of large spill: keep upwind. In case of dust production: consider evacuation. Remove all sources of ignition. Sweep up or vacuum up spillage and collect in suitable container for disposal. Do not flush into surface water or sanitary sewer system. Do not let this chemical enter the environment.

Section 7: Handling and Storage

Precautions:

Comply with the legal requirements. Clean contaminated clothing. Thoroughly clean/dry the installation before use. Do not discharge the waste into the drain. Avoid raising dust. Keep away from naked flames/heat. Observe strict hygiene. Keep container tightly closed. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

Do not breathe dust. Do not get in eyes, on skin, or on clothing. Use only in area provided with appropriate exhaust ventilation. Handle under inert gas, protect from moisture.

Storage:

Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Never allow product to get in contact with water during storage. Keep away from heat and sources of ignition. Keep away from acids. Keep away from oxidizing agents. Corrosives area

Section 8: Exposure Controls / Personal Protection

Engineering Controls:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation.

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. Dust respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. 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: Powder Solid.

Odour: Odorless.

Taste: Not available.

Molecular Weight: 53.93 g/mole

Colour: White

pH (1% soln/water): Not available.

Boiling Point: No information available

Melting Point: 500 °C / 932 °F

Critical Temperature: Not available.

Specific Gravity: 1.1100 (Water = 1)

Vapour Pressure: < 0.1 hPa (20 °C)

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: Stable under normal conditions. Moisture sensitive.

Instability Temperature: Not available.

Conditions of Instability: Not available.

Incompatibility with various substances: Strong oxidizers.

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: Inhalation; Skin and eye contact

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

Chronic Effects on Humans: EXPOSURE TO HIGH CONCENTRATIONS: Dry/sore throat.
Coughing.
Redness of the eye tissue.

Other Toxic Effects on Humans: Vomiting. Nausea. Abdominal pain. Blood in stool. Bleeding of the gastrointestinal tract. Increased salivation. Myasthenia. Cramps/uncontrolled muscular contractions. Paralysis. Disturbances of heart rate. High arterial pressure

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 classified as dangerous for the ozone layer

Mild water pollutant (surface water). Ground water pollutant. Maximum concentration in drinking water: 250 mg/l (chloride) (Directive 98/83/EC). Slightly harmful to fishes (LC50 100-1000 mg/l). Harmful to invertebrates (Daphnia). Harmful to aquatic plants. Not harmful to bacteria (EC50 >1000 mg/l).

BOD5 and COD: Not available.

Products of Biodegradation: Not applicable.

Toxicity of the Products of Biodegradation: Not available.

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: CLASS 4.3

Identification: Potassium Borohydride UN Number: UN1870 PG: I

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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