Material Safety Data Sheet
Potassium borohydride

MSDS# 97351

Section 1 - Chemical Product and Company Identification

MSDS Name: Potassium borohydride
Catalog Numbers: AC196550000, AC196550025, AC196551000, AC196555000, AC418180000, AC418181000
Synonyms: Potassium borohydrate.

Company Identification: Acros Organics BVBA
Janssen Pharmaceuticaaen 3a
2440 Geel, Belgium

Company Identification: (USA)
Acros Organics
One Reagent Lane
Fair Lawn, NJ 07410

For information in the US, call: 800-ACROS-01
For information in Europe, call: +32 14 57 52 11
Emergency Number, Europe: +32 14 57 52 99
Emergency Number US: 201-796-7100
CHEMTREC Phone Number, US: 800-424-9300
CHEMTREC Phone Number, Europe: 703-527-3887

Section 2 - Composition, Information on Ingredients

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CAS#: 13762-51-1
Chemical Name: Potassium borohydride
%: 98
EINECS#: 237-360-5
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Hazard Symbols: T F
Risk Phrases: 14/15 24/25 34

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Danger! Causes burns by all exposure routes. Toxic if swallowed. Toxic if absorbed through the skin. Reacts violently with water liberating highly flammable gases. Target Organs: Respiratory system, gastrointestinal system, eyes, skin, mucous membranes.

Potential Health Effects

Eye: Causes eye burns.
Skin: Causes skin burns. Toxic in contact with skin.
Ingestion: Causes gastrointestinal tract burns. Causes cough, sore throat, chest pain, and lightheadedness. Toxic if swallowed.
Inhalation: Causes chemical burns to the respiratory tract. May cause abdominal pain, nausea, vomiting, and inflammation of the gums and mouth. May be harmful if inhaled.
Chronic: No information found.
Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

Skin: Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion: Get medical aid immediately. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

Inhalation: Get medical aid immediately. Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Reacts violently with water giving off flammable gas which may explode.

Extinguishing Media: Use approved class D extinguishing agents or smother with dry sand, clay, or sodium bicarbonate. Do NOT use water, carbon dioxide, or foam. Contact professional fire-fighters immediately.

Autoignition Temperature: Not applicable.

Flash Point: Not applicable.

Explosion Limits: Not available

NFPA Rating: ; Special Hazard: -W-

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Wear a self contained breathing apparatus and appropriate personal protection. (See Exposure Controls, Personal Protection section). Avoid generating dusty conditions. Remove all sources of ignition. Use a spark-proof tool. Provide ventilation. Do not expose spill to water. Do not let this chemical enter the environment.

Section 7 - Handling and Storage

Handling: Do not allow water to get into the container because of violent reaction. Minimize dust generation and accumulation. Use spark-proof tools and explosion proof equipment. Do not get in eyes, on skin, or on clothing. Keep away from heat, sparks and flame. Do not ingest or inhale. Use only in a chemical fume hood. Keep from contact with moist air and steam.


Section 8 - Exposure Controls, Personal Protection

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA Final PELs</th>
</tr>
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<tbody>
<tr>
<td>Potassium borohydride</td>
<td>none listed</td>
<td>none listed</td>
<td>none listed</td>
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OSHA Vacated PELs: Potassium borohydride: None listed

Engineering Controls:
Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use only under a chemical fume hood.

Exposure Limits
Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

Section 9 - Physical and Chemical Properties

Physical State: Crystalline powder
Color: white
Odor: odorless
pH: Not available
Vapor Pressure: Not available
Vapor Density: Not available
Evaporation Rate: Not available
Viscosity: Not available
Boiling Point: Not available
Freezing/Melting Point: 500 deg C (dec)

Decomposition Temperature:
Solubility in water: Reacts
Specific Gravity/Density: 1.1100g/cm3
Molecular Formula: H4BK
Molecular Weight: 53.93

Section 10 - Stability and Reactivity

Chemical Stability: Reacts violently with water.
Conditions to Avoid: Incompatible materials, ignition sources, dust generation, excess heat, exposure to moist air or water.
Incompatibilities with Other Materials: Strong oxidizing agents, acids, strong bases, alcohols, water.
Hazardous Decomposition Products: Oxides of boron, borane, hydrogen gas, oxides of potassium.
Hazardous Polymerization Will not occur.

Section 11 - Toxicological Information

RTECS#: CAS# 13762-51-1: TS7525000

RTECS:
**CAS# 13762-51-1**: Inhalation, rat: LC50 = 46 mg/m3;
Oral, mouse: LD50 = 55 mg/kg;
Oral, rabbit: LD50 = 60 mg/kg;
Oral, rat: LD50 = 167 mg/kg;
Skin, rabbit: LD50 = 230 mg/kg;

Other: Carcinogenicity: Potassium borohydride - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Other: The toxicological properties have not been fully investigated. See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Other: Do not empty into drains.

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information
Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: T F

Risk Phrases:
R 14/15 Reacts violently with water liberating extremely flammable gases.
R 24/25 Toxic in contact with skin and if swallowed.
R 34 Causes burns.

Safety Phrases:
S 7/8 Keep container tightly closed and dry.
S 28A After contact with skin, wash immediately with plenty of water.
S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

WGK (Water Danger/Protection)

CAS# 13762-51-1: Not available

Canada

CAS# 13762-51-1 is listed on Canada's NDSL List

Canadian WHMIS Classifications: B6, E, D1B

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

CAS# 13762-51-1 is not listed on Canada's Ingredient Disclosure List.

US Federal

TSCA

CAS# 13762-51-1 is listed on the TSCA Inventory.

Section 16 - Other Information

MSDS Creation Date: 9/02/1997
Revision #6 Date 7/20/2009

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantibility or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

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