STANFORD ADVANCED MATERIALS
http://www.samaterials.com

Stanford Advanced Materials
We not only sell products, we provide satisfactions.
72 Fairbanks Suite 100, Irvine, CA 92618, USA
Tel: (949) 407-8904 Fax: (949) 812-6690

Current Version: 2.0
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Material Safety Data Sheet

Identity: Iron boride
Formula: FeB
Chemical Family: Metal boride

Section I - General Information

Manufacturer: Stanford Advanced Materials (SAM)

The information below is believed to be accurate and represents the best information available to SAM. However, SAM makes no warranty, expressed or implied with respect to such information and we assume no liability resulting from its use.

Section II - Hazardous Ingredients/Identity Information

Hazardous Components	CAS #	ACGIH-TLV	OSHA/PEL	%
Iron Boride	12006-84-7	N/E	N/E	100

Section III - Physical/Chemical Characteristics:

Boiling Point: N/E
Melting Point: 1300-1500 °C
% Volatile: N/E
Solubility in water: Insoluble
Specific Gravity(H2O-1): 7.15gm/cc@18°C
Evaporation Rate: N/A
Vapor Density: N/A
Vapor Pressure: N/A
Physical State: Solid
Appearance: Gray powder, no odor.

Section IV - Fire and Explosion Hazard Data:

Flash Point: N/E
Extinguishing media:
Use suitable extinguishing media for surrounding materials and type of fire. Fire fighters must wear full face breathing apparatus and protective clothing to avoid contact with skin and eyes. Fumes from fire are hazardous.
Unusual fire and explosion hazards: May slowly react with water to evolve hydrogen gas. May be a mild explosion hazard.

Section V - Reactivity Data

Stability: Stable
Conditions to avoid: None

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Incompatibility: Water, moisture, strong acids and bases.
Hazardous Decomposition Products: Hydrogen gas.
Hazardous Polymerization: Will not occur.

Section VI - Health Hazard Data

Routes of exposure:
Inhalation: acute: may cause irritation to respiratory system, boron and possibly iron poisoning. Large amounts of iron may cause pneumoconiosis.
Chronic: May cause pulmonary fibrosis, chronic iron poisoning, and pathological deposition of iron in body tissue.
Ingestion: acute: May cause gastrointestinal irritation and boron poisoning.
Chronic: May affect the central nervous system and cause damage to the liver.
Skin: acute: May cause irritation. Chronic: May cause dermatitis.
Eyes: May cause irritation.
Chronic: No chronic health effects recorded.

Emergency and First Aid:
In case of inhalation, remove victim to fresh air, administer oxygen if breathing is difficult, seek medical attention.
In case of ingestion, give 1-2 glasses of milk or water and induce vomiting if person is conscious. Seek medical attention.
In case of skin contact, brush material off skin, remove contaminated clothing. Wash affected area with soap and water, seek medical attention.
In case of eye contact, flush eyes and under eyelids, with lukewarm water for 15 minutes. Seek medical attention.

Section VII - Precautions for Safe Handling and Use

Steps to be taken in case material is released or spilled:
Wear appropriate respiratory and protective equipment specified in section VIII - control measures. Isolate spill area, provide ventilation and extinguish sources of ignition. Vacuum up spill using a high efficiency particulate absolute (HEPA) air filter and place in a closed container for proper disposal. Take care not to raise dust. Use non-sparking tools.
Waste disposal method:
Dispose of in accordance with state, local, and federal regulations.
Hazard Label Information:
Store in cool, dry area. Store in tightly sealed container. Wash thoroughly after handling.

Section VIII - Control Measures

Protective Equipment Summary - Hazard Label Information:
NIOSH/MSHA approved respirator, Impervious gloves, Safety glasses, clothes to prevent skin contact.
Respiratory Protection (Specify Type) - NIOSH - approved dust respirator.
Ventilation:

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Local Exhaust: To maintain concentration at low exposure levels.
Mechanical (General): Recommended.
Protective Gloves: Rubber gloves. *Eye Protection:* Safety glasses.
Other Protective Clothing or Equipment: Protective gear suitable to prevent contamination.
Work/Hygienic/Maintenance Practices: Implement engineering and work practice controls to reduce and maintain concentration of exposure at low levels. Use good housekeeping and sanitation practices. Do not use tobacco or food in work area. Wash thoroughly before eating and smoking. Do not blow dust off clothing or skin with compressed air.