



Health	1
Flammability	0
Physical Hazard	0



Safety Data Sheet (SDS)

Revision / Review Date: 5/28/15

1. Chemical Product and Company Identification

Product Name: Zinc Borate
Distributed By: HB Chemical
1665 Enterprise Parkway
Twinsburg Oh 44087
Phone - 330-920-8023

SDS Prepared By (w Suppliers Input): HB Chemical
Chemical Name / Family: Not available
Molecular Formula: Not available
Molecular Weight via GPC, Mn: 389.78 g/mol
Product Use: Flame Retardant
OSHA Status: Hazardous
CAS No: Proprietary

For emergency health, safety, and environmental information, calls 330-920-8023

For emergency transportation information, in the United States: call CHEMTREC at 800-424-9300

2. Hazard(s) Identification

Warning:



Classification according to EC regulation 1272/2008 (CLP):

Aquatic Acute 1; H400 Very toxic to aquatic life.
Eye Irrit. 2; H319 Causes serious eye irritation.

Classification according to directive 67/548/EEC:

R50 Very toxic to aquatic organisms.

Hazard statements:

H319 Causes serious eye irritation.
H400 Very toxic to aquatic life.

Safety precautions:

P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for

several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313 If eye irritation persists: Get medical advice/attention.

P391 Collect spillage.

P501 Dispose of contents/container to hazardous or special waste collection point.

Labelling (67/548/EEC or 1999/45/EC)

R phrase(s):

R 50 Very toxic to aquatic organisms.

S phrase(s):

S2 Keep out of the reach of children.

S 25 Avoid contact with eyes.

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 60 This material and its container must be disposed of as hazardous waste.

S 61 Avoid release to the environment. Refer to special instructions/safety data sheet.

Overview:

A white powder that can cause irritation to the respiratory tract. Prolonged exposure to the skin, eyes and respiratory tract may cause irritation. Ingestion is harmful and should be avoided. Not considered a fire or explosion hazard. Very toxic to aquatic life. Avoid release to the environment. Keep out of the reach of children. This material and its container must be disposed of as hazardous waste.

Signs and Symptoms of Exposure:

Irritation to the eyes, nose and throat. Irritation to the skin with possible lesions.

Primary Routes of Entry:

Skin, eyes and mouth.

Medical Conditions Generally Aggravated by Exposure:

None known.

Eye Contact:

Causes serious eye irritation.

Skin Contact:

May cause irritations.

Ingestion:

May be harmful if swallowed. May cause irritations.

Inhalation:

May be harmful if inhaled. May cause irritations.

NFPA Hazard Ratings:

Health-1, Flammability -0, Reactivity - 0

HMIS Hazard Ratings:

Health-1, Flammability -0, Reactivity - 0

HMIS limitation statement:

The HMIS hazard ratings numbers are meant to give a quick indication of the relative hazards associated with the product. All of the information contained in the SDS should be consulted to assist with the safe handling of this material.

Principal Hazardous Components:

Not available.

3. Composition / Information on Ingredients

Weight Percent / Typical	Component Identity	CAS Registry Number
N/A	Proprietary	Proprietary

4. First Aid Measures

<u>Inhalation:</u>	Provide fresh air. If you feel unwell, seek medical advice.
<u>Eyes:</u>	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists get medical advice/attention
<u>Skin:</u>	After contact with skin, wash immediately with plenty of water. In case of skin reactions, consult a physician.
<u>Ingestion:</u>	Rinse mouth. Drink one or two glasses of water. Consult physician.

5. Fire-Fighting Measures

<u>Suitable Extinguishing Media:</u>	Water Spray, Dry Chemical, Carbon Dioxide CO2, Foam.
<u>Special Fire Fighting Procedures:</u>	Do not use high power water jet to put out fire. Wear self-contained breathing apparatus. To avoid contact with skin, keep safety distance and wear suitable protective clothing.
<u>Hazardous Combustion Products:</u>	If heated to decomposition product may emit: zinc oxide, boron oxide.
<u>Unusual fire and explosion hazards:</u>	None known.

6. Accidental Release Measures

<u>Steps to be taken in case material is spilled:</u>	Avoid generation of dust. Do not breathe dust. Provide adequate ventilation. Take up mechanically, placing in appropriate containers for disposal.
<u>Environmental Disposal Information:</u>	Do not allow to penetrate into soil, waterbodies or drains. Avoid release to the environment. Very toxic to aquatic organisms.
<u>Waste Disposal:</u>	Dispose of contents/container to hazardous or special waste collection point.

7. Handling and Storage:

<u>Empty Containers:</u>	Not available.
<u>Precautions to be taken in handling:</u>	Avoid generation of dust. In case of dust, provide adequate ventilation, and local exhaust as needed.
<u>Storage:</u>	Store container tightly closed in a cool, dry, ventilated area. Keep containers closed when not in use. Do not store near extreme heat, open flame, or sources of ignition.

8. Exposure Controls / Personal Protection

<u>Exposure Controls:</u>	Contains no substances with occupational exposure limit values.
<u>Respiratory Protection:</u>	In the case of the formation of dust, dust should be exhausted directly at the point of origin.
<u>Ventilation:</u>	Provide adequate ventilation.
<u>Protective Gloves:</u>	Wear gloves.
<u>Eye Protection:</u>	Wear safety glasses.
<u>Skin and Body Protection:</u>	Wear impervious clothing.
<u>Other Precautions:</u>	Wash with soap and water before eating, drinking or using toilet facilities. Launder contaminated clothing before reuse.
<u>Decontamination Facilities:</u>	Eye bath, washing facilities (sinks / showers).

9. Physical and Chemical Properties

<u>Physical Form:</u>	Solid
<u>Appearance & Odor:</u>	White Powder/ Odorless
<u>Specific Gravity:</u>	2.670
<u>Softening Point, R&B:</u>	Not available.
<u>Melting point:</u>	> 300 °C
<u>Solubility in Water:</u>	<= 0,025 g/L (estimated (OECD 112))
<u>Flash Point, TAG CC F:</u>	Not available.
<u>Percent Volatiles (by weight):</u>	Not available.
<u>Evaporation Rate (Water ~ I):</u>	Not available.
<u>Density:</u>	at 20 ° 2,6 g/cm ³
<u>Vapor Pressure (mm Hg):</u>	Not available.

<u>Vapor Density (Air ~ 1):</u>	Not available.
<u>Boiling Point (°F) Initial:</u>	Not available.
<u>Auto ignition Temperature, °C:</u>	Not available.
<u>Flammable Limits, %(V):</u>	Not available.

10. Stability and Reactivity

<u>Stability:</u>	This product is stable under normal conditions.
<u>Incompatibility (Materials to Avoid):</u>	Material reacts with strong oxidizing agents.
<u>Conditions to Avoid:</u>	None known.
<u>Hazardous Polymerization:</u>	Hazardous polymerization will not occur.
<u>Hazardous Decomposition Products:</u>	Zinc oxide, Boron oxide.

11. Toxicological Information

This material is not listed as a carcinogen or potential carcinogen by NTP, IARC, or OSHA.

<u>OSHA Permissible Exposure Limit:</u>	Not available.
<u>ACGIH Threshold Limit Value:</u>	Not available.
<u>Acute toxicity:</u>	LD50 Rat, oral: > 5000 mg/kg LD50 Rabbit, dermal: > 2000 mg/kg
<u>Acute toxicity (oral):</u>	Based on available data, the classification criteria are not met.
<u>Acute toxicity (dermal):</u>	Based on available data, the classification criteria are not met.
<u>Acute toxicity (inhalative):</u>	Based on available data, the classification criteria are not met.
<u>Skin corrosion/irritation:</u>	Based on available data, the classification criteria are not met.
<u>Eye damage/irritation:</u>	Eye Irrit. 2; H319 = Causes serious eye irritation.
<u>Sensitization to the respiratory tract:</u>	Lack of data.
<u>Skin sensitization:</u>	Based on available data, the classification criteria are not met.
<u>Germ cell mutagenicity/Genotoxicity:</u>	Based on available data, the classification criteria are not met.
<u>Carcinogenicity:</u>	Based on available data, the classification criteria are not met.
<u>Reproductive toxicity:</u>	Based on available data, the classification criteria are not met.

<u>Effects on or via lactation:</u>	Lack of data.
<u>Specific target organ toxicity (single exposure):</u>	Lack of data.
<u>Specific target organ toxicity (repeated exposure):</u>	Lack of data.
<u>Aspiration hazard:</u>	Data technically impossible to obtain.
<u>Sensitization:</u>	Not known to cause sensitization.

12. Ecological Information

<u>Aquatic toxicity:</u>	Very toxic to aquatic organisms.
<u>Fish toxicity:</u>	LC50 Oncorhynchus mykiss: 0,16 mg/L/96 h NOEC: Oncorhynchus mykiss: 0,130 mg/L/25 h Daphnia toxicity: LC50 Daphnia magna (Big water flea): 141 mg/L/48 h
<u>Persistence and degradability:</u>	The methods for determining the biological degradability are not applicable to inorganic substances.
<u>Effects in sewage plants:</u>	Respiratory inhibition of municipal activated sludge: EC50: >175 mg/L/3h
<u>Bioaccumulative potential:</u>	No data available.
<u>Mobility in soil:</u>	No data available.
<u>Results of PBT and vPvB assessment:</u>	No data available.
<u>Other adverse effects:</u>	Do not allow to penetrate into soil, waterbodies or drains.

13. Disposal Considerations

Reclaim or Dispose of material in accordance with all applicable local, state, and federal regulations.

14. Transport Information

<u>UN number ADR/RID, IMDG, IATA:</u>	3077
<u>UN proper shipping name ADR/RID, IMDG, IATA:</u>	UN 3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Hexaboron dizinc undecaoxide)
<u>Transport hazard class:</u>	ADR/RID: Class 9, Code: M7 IMDG: Class 9, Subrisk IATA: Class 9
<u>Packing group ADR/RID, IMDG, IATA:</u>	III

<u>Environmental hazards Marine pollutant - IMDG:</u>	Yes
<u>Land transport (ADR/RID):</u>	Warning board: ADR/RID: Kemmler-number 90, UN number 3077 Hazard label: 9 Special provisions: 274 335 601 Limited quantities: 5 kg EQ: E1 Contaminated packaging Instructions: P002 IBC08 LP02 R001 Contaminated packaging: Special provisions: PP12 B3 Special provisions for packing together: MP10 Portable tanks: Instructions: T1 BK1 BK2 Portable tanks: Special provisions: TP33 Tank coding: SGAV LGBV Tunnel restriction code: E
<u>Sea transport (IMDG):</u>	EmS: F-A, S-F Special provisions: 274, 335 Limited quantities: 5 kg EQ: E1 Contaminated packaging: Instructions: P002, LP02 Contaminated packaging: Provisions: PP12 IBC: Instructions: IBC08 IBC: Provisions: B3 Tank instructions - IMO: Tank instructions - UN: T1, BK2 Tank instructions Provisions: TP33 Stowage and segregation: Category A Properties and observations: None Segregation group: None
<u>Air transport (IATA):</u>	Hazard: Miscellaneous EQ: E1 Passenger Ltd.Qty.: Pack.Instr. Y956 - Max. Net Qty/Pkg. 30 kg G Passenger: Pack.Instr. 956 - Max. Net Qty/Pkg. 400 kg Cargo: Pack.Instr. 956 - Max. Net Qty/Pkg. 400 kg Special Provisioning: A97 A158 A179 ERG: 9L

15. Regulatory Information

National regulations:

Great Britain Hazchem-Code:2Z
USA TSCA Inventory: listed
TSCA HPVC: not listed

16. Other Information

The above information has been compiled from what we believe to be credible sources. To our knowledge the information is accurate and reliable, however, it is not guaranteed. Any recommendations issued by HB Chemical personnel or literature is derived from experience and by no means should be taken as fact or construed as a

recommendation to violate of any law, regulation or patent. It is the users responsibility to determine the suitability of any HB supplied material in their application. The individual conditions of each customer are well outside of our control and we cannot be held liable for its functionality and use. Please contact our office should you need specific information beyond what is supplied above. As with all Chemical usage safety precautions beyond the stated are highly recommended.