

Boric Oxide

MSDS Number: rm-anhybor

Revision Date: 12/8/2014

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1 PRODUCT AND COMPANY IDENTIFICATION

Product Name: Boric Oxide
Revision Date: 12/8/2014
Version: 1.1
MSDS Number: rm-anhybor
Common Name: Boric Oxide
CAS Number: 1303-86-2
EPA Number: 40 CFR 261
RCRA Number: 40 CFR 261
Chemical Family: Borates
Chemical Formula: B₂O₃
Synonyms: Anhydrous boric acid, Boron trioxide, diboron trioxide

Supplier:

Rose Mill Company
100 Brook Street
West Hartford, CT 06110

860-232-9990 (Phone)
860-232-9995 (Fax)

www.RoseMill.com
info@RoseMill.com

2 HAZARDS IDENTIFICATION

Route of Entry: Eyes; Mild eye irritant. Inhalation: Occasional mild irritation effects to nose and throat may occur from inhalation of dust levels greater than 10m/m³.

Target Organs: No target organs have been determined in humans.

Inhalation: Mild irritation to nose and throat may occur when the PEL or TLV are exceeded.

Skin Contact: Non-irritating to intact skin.

Eye Contact: May cause irritation.

Ingestion: Not intended for digestion. Amounts greater than one teaspoonful, when ingested, may cause gastrointestinal problems.

GHS Signal Word:
DANGER

GHS Hazard Pictograms:



GHS Classifications:
Health, Reproductive toxicity, 1

GHS Phrases:

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H360 - May damage fertility or the unborn child

GHS Precautionary Statements:

P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P332+313 - If skin irritation occurs: Get medical advice/attention.

3	COMPOSITION/INFORMATION ON INGREDIENTS
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Ingredients:

Cas #	Percentage	Chemical Name

1303-86-2	>99%	Boron oxide (B2O3)

4	FIRST AID MEASURES
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- Inhalation:** If symptoms develop, move victim to fresh air. If symptoms persist, obtain medical attention.
- Skin Contact:** Non-irritating to intact skin.
- Eye Contact:** Flush with large amounts of water or saline solution, occasionally lifting upper and lower lids, until no evidence of powder remains (approx 15-20mins). Get medical attention if aggravation persists.
- Ingestion:** Not intended for digestion. Small amounts (e.g.a teaspoonful) swallowed accidentally are not likely to cause effects. If large amounts are swallowed, give two glasses of water or milk to drink and seek medical attention.

5	FIRE FIGHTING MEASURES
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- Flammability:** None
- Flash Point:** None

Any fire extinguishing media may be used on nearby fires.

6	ACCIDENTAL RELEASE MEASURES
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Borates may damage trees and vegetation. For dry spills, sweep, vacuum, or shovel and place in containers for disposal in accordance with applicable regulations. Avoid contamination of bodies of water during cleanup. Can cause localized contamination of surrounding waters depending on amount dissolved in these waters. Some damage to local vegetation, fish, and other aquatic life may be expected. Under usual conditions, no protective equipment is required. Remove any intact containers from water where possible. Advise local water authority that none of the affected water should be used for irrigation or for the abstraction of potable water until natural dilution returns the boron value to its normal environmental background level. Product is a non-hazardous waste when spilled or disposed of, as defined in the Resource Conservation and Recovery Act (RCRA) regulations (40 CFR 261). Vacuum or sweep any dry material into a bag or other sealed container and dispose in accordance with local requirements.

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7	HANDLING AND STORAGE
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Handling Precautions: No special handling precautions are required.

Storage Requirements: Dry, indoor storage is recommended. To maintain package integrity and to minimize caking of the product, bags should be handled on a first-in, first-out basis. Good housekeeping procedures should be followed to minimize dust generation and accumulation. The product should be kept away from strong reducing agents.

8	EXPOSURE CONTROLS/PERSONAL PROTECTION
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Engineering Controls: All ventilation should be designed in accordance with OSHA standard (29 CFR 1910.94).

Personal Protective Equip: Goggles; In poorly ventilated areas you must wear a supplied air respirator. Gloves;

Signs and symptoms of exposure: Symptoms of accidental over-exposure to anhydrous borax have been associated with ingestion or absorption through large areas of damaged skin. These may include nausea, vomiting, and diarrhea with delayed effects of skin redness and peeling.

9	PHYSICAL AND CHEMICAL PROPERTIES
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Appearance:	White, odorless, granular or powdered substance.		
Spec Grav./Density:	1.51	Odor:	Odorless
Vapor Pressure:	negligible @ 20C (68F)	Solubility:	4.0% @ 20C
pH:	5.1 Aqueous solution (1.0 % solutions)	Freezing/Melting Pt.:	450-465C (842-869F)
Molecular weight:	69.6		

10	STABILITY AND REACTIVITY
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Stability: Product is stable under normal conditions.

Materials to Avoid: Strong reducing agents such as metal hydrides or alkali metals will generate hydrogen gas that could create an explosive hazard.

Hazardous Decomposition: None

Hazardous Polymerization: None

11	TOXICOLOGICAL INFORMATION
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Reproductive toxicity: Animal feeding studies in rats, mice and dogs at high doses have demonstrated effects on fertility and testes.

12	ECOLOGICAL INFORMATION
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Boron is an essential micronutrient for healthy growth of plants, however, it can be harmful to boron sensitive plants in high quantities. Care should be taken to minimize the amount of borate product released to the environment. Boron occurs naturally in sea water at an average concentration of 5 mg B/l and fresh water at 1 mg B/l. In dilute aqueous solutions the predominant boron species present is undissociated boric acid.

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13	DISPOSAL CONSIDERATIONS
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Small quantities can usually be disposed of at landfill sites. No special disposal treatment is required, but local authorities should be consulted about any specific local requirements. Tonnage quantities of product are not recommended to be sent to landfills. Such product should, if possible, be used for an appropriate application.

14	TRANSPORT INFORMATION
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Not hazardous product according to these transport classifications.

15	REGULATORY INFORMATION
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COMPONENT / (CAS/PERC) / CODES

*Boron oxide (B₂O₃) (1303862 n/a%) MASS, OSHAWAC, PA, TSCA, TXAIR

REGULATORY KEY DESCRIPTIONS

MASS = MA Massachusetts Hazardous Substances List
OSHAWAC = OSHA Workplace Air Contaminants
PA = PA Right-To-Know List of Hazardous Substances
TSCA = Toxic Substances Control Act
TXAIR = TX Air Contaminants with Health Effects Screening Level

16	OTHER INFORMATION
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