Andhydrous Borax

MSDS Number: rm-Abrx

Revision Date: 11/5/2014

1 PRODUCT AND COMPANY IDENTIFICATION

Product Name:	Andhydrous Borax
Revision Date:	11/5/2014
Version:	1.1
MSDS Number:	rm-Abrx
Common Name:	Anhydrous Borax
CAS Number:	1330-43-4
EPA Number:	1330-43-4
RCRA Number:	40 CFR 261
Chemical Family:	Inorganic Salt
Chemical Formula:	Na2B4O7
Synonyms:	Dehydrated borax, disodium tetraborate
Product Use:	Industrial manufacturing in particular in metallurgical fluxes, glass, fiberglass, ceramics, fertilizers and flame retarda

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:	Eyes; Airways;
Inhalation:	Occasional mild irritation effects to nose and throat may occur from inhalation of anhydrous borax dusts at level greater than 10 mg/m3.
Skin Contact:	Non-irritating.
Eye Contact:	May cause irritation. Mild eye irritant.
Ingestion:	Product not intended fro ingestion and has low acute toxicity, Small amount (e.g a teaspoonful) swallowed accidentally are not likely to cause effects: swallowing amounts larger than that may cause gastrointestinal sypmtoms.

GHS Signal Word:
WARNING

GHS Hazard Pictograms:

GHS Classifications:

Health, Reproductive toxicity, 2
Health, Serious Eye Damage/Eye Irritation, 2 A

GHS Phrases:
H361 - Suspected of damaging fertility or the unborn child
H319 - Causes serious eye irritation

GHS Precautionary Statements:
P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+351+338 - IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

Potential Ecological effects: Large amounts of anhydrous borax can be harmful to plants and other species. Therefore, releases to the environment should be minimized.
Reproductive/Developmental:animal ingestion studies in several species at high doses, indicate that borates cause reproductive developmental effects. A human study of occupational exposure to borate dust showed no adverse effect on reproduction.
Signs and sypmtoms of exposure: Symptons of accidental over-exposure to anhydrous boax have been associated with ingestion or absorption through large areas of damaged skin. These may include nausea, vomiting, diarrhea, with delayed effects of skin redness and peeling.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:

Cas #	Percentage	Chemical Name
1330-43-4	>99	Boron sodium oxide (B4Na2O7)

4 FIRST AID MEASURES

Inhalation: If sypmtoms develop, move victim to fresh air. If sypmptoms persist, obtain medical attention.
Skin Contact: Non-irritating.
Eye Contact: Immediately flush eyes with large amounts of water for at least 15 minutes, lifting eyelids occasionally to facilitate irrigation.
Ingestion: Non 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

Flash Point: Non flammable
Flash Point Method: Non Flammable

Any fire extinguishing media may be used on nearby fires. The product is itself a flame retardant.

6 ACCIDENTAL RELEASE MEASURES

Spillage into water: Where possible, remove any intact containers from the water. Advised 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.
Personal precautions: Avoid dust formation. In case of exposure to high level of airborned dust, wear personal respirator in compliance with national legislation.
Environmental precautions. Anhydrous borax is a water-soluble white powder that may cause damage to trees and vegetation by root absorption. Keep away from drains and groud water.
Methods for cleaning up (land spill): Vacuum or sweep the material into a bag or other sealed container and dispose in accordance with local requirements.

7 HANDLING AND STORAGE

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

Engineering Controls: All ventilation should be designed in accordance with OSHA standard (29 CFR 1910.94).

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

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 ski. These my include nausea, vomiting, and diarrhea with delayed effects of skid redness and peeling.

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	White, ordorless, granular substance.		
Physical State:	Granular solid	**Odor:**	None
Spec Grav./Density:	2.37	**Molecular Formula:**	Na2B4O7
Boiling Point:	1575C	**Solubility:**	2.48% @ 20C
Flammability:	None	**Freezing/Melting Pt.:**	Melting PT -741C
Vapor Pressure:	Negligible @ 20C	**Flash Point:**	Non flammable
pH:	@ 20C		
Molecular weight:	201.22		

10 STABILITY AND REACTIVITY

Stability:	Product is stable under normal conditions.
Conditions to Avoid:	Reaction with strong reducing agents such as metal hydrides, acetic anhydride or alkali metals will generate hydrogen gas which could create an explosive hazard.
Materials to Avoid:	Strong reducing agents
Hazardous Decomposition:	None
Hazardous Polymerization:	Will not occur

11 TOXICOLOGICAL INFORMATION

Acute Toxicity:

Oral (LD 50): Low, in rats is 2,400 to 2,600 mg/kg of body weight

Inhalation (LC 50): Low, in rats greater than 2.0 mg/l

Skin irritation: Non irritant

Eye irritation: Mild eye irritant in rabbits. Fifty years of occupational exposure indicates no adverse affects on human eyes. Non irritating to eyes in normal industrial use.

Sensitation: Not a skin sensitizer

Reproductive/Developmental toxicity: animal feeding studies in rat, mouse, and dog at high doses, have demonstrated effects on fertility and testes. Studies with the chemically related boric acid in rat, mouse, and rabbit at high doses, demonstrate developmental effects on the fetus including fetal weight losss and minor skeletal variations. The doses administered were many times in excess of those which humans would normally be exposed to.

Carcinogenicity: Not a carcinogen. Not a mutagen.

Human data: Human epidemiological studies show no increase in pulmonary disease in occupational populations with chronic exposure to borate dusts indicated to effect on fertility.

Phytotoxicity: Boron is an essential micronutrient for healthy growth of plants, however, it can be harmful to boron sensitive plants with higher quantities. Care should be taken to minimize the amount of borate product released to the environment.

12 ECOLOGICAL INFORMATION

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 undisassociated boric acid.
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.
Environmental Fate Data:
Persistence/Degredation: Boron is naturally occurring and ubiquitous in the environment.
Octanol/Ware partition coeffecient: No value. In aqueous solution anhydrous borax converted substantially into undisassociated boric acid.
Soil Mobility: The product is soluable in water and is leachable through normal soil.

13 DISPOSAL CONSIDERATIONS

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

Not hazardous product according to these transport classifications.

15 REGULATORY INFORMATION

COMPONENT / (CAS/PERC) / CODES

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*Boron sodium oxide (B4Na2O7) (1330434 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

Disclaimer:
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