

Material Safety Data Sheet

Section 1. Product and Company Identification

Product Name Sodium Borate
Manufacturer EMD Chemicals Inc.
P.O. Box 70
480 Democrat Road
Gibbstown, NJ 08027
Prior to January 1, 2003 EMD Chemicals Inc. was EM Industries,
Inc. or EM Science, Division of EM Industries, Inc.

For More Information Call
856-423-6300 Technical Service
Monday-Friday: 8:00 AM - 5:00 PM

Synonym SODIUM TETRABORATE; BORAX
Material Uses Analytical reagent.
Chemical Family Inorganic salt.

Product Code B10267
Effective Date 3/10/2006

In Case of Emergency Call
800-424-9300 CHEMTREC (USA)
613-996-6666 CANUTEC (Canada)
24 Hours/Day: 7 Days/Week

Section 2. Composition and Information on Ingredients

Component	CAS #	% by Weight
Sodium Borate, Decahydrate	1303-96-4	100

+ Section 3. Hazards Identification

Physical State and Appearance Solid. (Crystals or powder)

Emergency Overview CAUTION!
CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION.
CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING ORGANS: RESPIRATORY TRACT, SKIN, EYES, EYE, LENS OR CORNEA.
MAY BE HARMFUL IF INHALED OR SWALLOWED.

Routes of Entry

Potential Acute Health Effects

Eyes Hazardous in case of eye contact (irritant). Inflammation of the eye is characterized by redness, watering, and itching.

Skin Hazardous in case of skin contact (irritant). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

Inhalation Hazardous in case of inhalation (lung irritant). May be hazardous in case of inhalation.

Ingestion May be hazardous in case of ingestion.

Potential Chronic Health Effects

Carcinogenic Effects This material is not known to cause cancer in animals or humans.

Additional information See Toxicological Information (section 11)

Medical Conditions Aggravated by Overexposure: Repeated or prolonged exposure is not known to aggravate medical condition.

Section 4. First Aid Measures

Eye Contact Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.

Skin Contact In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

Inhalation If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Ingestion Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

Section 5. Fire Fighting Measures

Flammability of the Product May be combustible at high temperature.

Auto-ignition Temperature Not available.

Flash Points Not available.

Flammable Limits Not available.

Products of Combustion Some metallic oxides.

Fire Hazards in Presence of Various Substances Not available.

Risks of explosion of the product in presence of static discharge: No.

Risks of explosion of the product in presence of mechanical impact: No.

Fire Fighting Media and Instructions SMALL FIRE: Use DRY chemical powder.

LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

Protective Clothing (Fire) Be sure to use an approved/certified respirator or equivalent.

Special Remarks on Fire Not available.

Section 6. Accidental Release Measures

Small Spill and Leak
Large Spill and Leak

Use appropriate tools to put the spilled solid in a convenient waste disposal container.
Use a shovel to put the material into a convenient waste disposal container. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

Spill Kit Information

No specific spill kit required for this product.

Section 7. Handling and Storage

Handling
Storage

Avoid contact with eyes, skin and clothing. Do not ingest. Avoid breathing dust. Keep container closed.
Keep container in a cool, well-ventilated area.

Section 8. Exposure Controls/Personal Protection

Engineering Controls

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection

Eyes	Splash goggles.
Body	Lab coat.
Respiratory	Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.
Hands	Gloves.
Feet	Not applicable.

Protective Clothing
(Pictograms)



Personal Protection in
Case of a Large Spill

Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Product Name

Sodium Borate, Decahydrate

Exposure Limits

INRS (France, 1996).

VME: 5 mg/m³ 8 hour(s).

AFS (Sweden, 1996). Skin

KTV: 5 mg/m³ 15 minute(s).

NGV: 2 mg/m³ 8 hour(s).

EH40-OES (United Kingdom (UK), 1997).

TWA: 5 mg/m³ 8 hour(s).

NIOSH REL (United States, 1994).

TWA: 5 mg/m³ 10 hour(s).

NOHSC (Australia, 2002). Notes: Documentation for the substances with this footnote can be found in the 5th Edition of the ACGIH documentation of the threshold limit values and biological exposure indices.¹ For all other substances with 'H' in Column 7 the documentation can be found in the 6th Edition of the ACGIH documentation of the threshold limit values and biological exposure indices.²

TWA: 1 mg/m³ 8 hour(s).

Lijst Grenswaarden (Belgium, 2002).

VL: 5 mg/m³ 8 hour(s).

SUVA (Switzerland, 2001).

MAK: 5 mg/m³ 8 hour(s). Form: Dust

Arbejdstilsynet (Denmark, 2000). Skin

GV: 2 mg/m³ 8 hour(s).

INSHT (Spain, 2001).

TWA: 5 mg/m³ 8 hour(s).

NAOSH (Ireland, 2002).

OEL: 5 mg/m³ 8 hour(s).

Ministry of Labor (KR, 1997).

TWA: 5 mg/m³ 8 hour(s).

Secretary of Work and Social Security (MX, 1994).

CPT: 1 mg/m³ 8 hour(s).

Nationale MAC-lijst (Netherlands, 2003). Notes: Administrative

TGG 8 uur: 5 mg/m³ 8 hour(s).

Arbejdstilsynet (Norway, 2001).

AN: 5 mg/m³ 8 hour(s).

NZ OSH (NZ, 1994).

TWA: 1 mg/m³ 8 hour(s).

OSHA PEL 1989 (United States, 1989).

TWA: 10 mg/m³ 8 hour(s).

Section 9. Physical and Chemical Properties

Odor

Odorless.

Color	White.
Physical State and Appearance	Solid. (Crystals or powder)
Molecular Weight	381.42 g/mole
Molecular Formula	B4-O7.2Na.10H2-O
pH	Not available.
Boiling/Condensation Point	319.9°C (607.8°F)
Melting/Freezing Point	74.9°C (166.8°F)
Specific Gravity	1.73 (Water = 1)
Vapor Pressure	Not available.
Vapor Density	Not available.
Odor Threshold	Not available.
Evaporation Rate	Not available.
LogKow	Not available.
Solubility	Soluble in water.

Section 10. Stability and Reactivity

Stability and Reactivity	The product is stable.
Conditions of Instability	Not available.
Incompatibility with Various Substances	Reactive with metals, acids.
Rem/Incompatibility	Not available.
Hazardous Decomposition Products	Not available.
Hazardous Polymerization	Will not occur.

Section 11. Toxicological Information

RTECS Number:	Sodium Borate, Decahydrate, GR	VZ2275000
Toxicity	Acute oral toxicity (LD50): 2660 mg/kg [Rat].	
Chronic Effects on Humans	Not available.	
Acute Effects on Humans	Hazardous in case of eye contact (irritant). Inflammation of the eye is characterized by redness, watering, and itching. Hazardous in case of skin contact (irritant). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering. Hazardous in case of inhalation (lung irritant). May be hazardous in case of inhalation. May be hazardous in case of ingestion.	
Synergetic Products (Toxicologically)	Not available.	
Irritancy	Draize Test: Not available.	
Sensitization	Not available.	
Carcinogenic Effects	This material is not known to cause cancer in animals or humans.	
Toxicity to Reproductive System	Tests on laboratory animals for reproductive effects are cited in Registry of Toxic Effects on Chemical Substances (RTECS).	
Teratogenic Effects	Not available.	
Mutagenic Effects	Tests on laboratory animals for mutagenic effects are cited in Registry of Toxic Effects of Chemical Substances (RTECS).	

Section 12. Ecological Information

Ecotoxicity	Not available.
BOD5 and COD	Not available.
Toxicity of the Products of Biodegradation	The products of degradation are less toxic than the product itself.

Section 13. Disposal Considerations

EPA Waste Number	Not available.
Treatment	Material does not have an EPA Waste Number and is not a listed waste, however consultation with a permitted waste disposal site (TSD) should be accomplished. Always contact a permitted waste disposal (TSD) to assure compliance with all current local, state, and Federal Regulations.

Section 14. Transport Information

DOT Classification	Proper Shipping Name: CHEMICALS, N.O.S. RQ: Not applicable.
TDG Classification	Not available.
IMO/IMDG Classification	Proper Shipping Name: CHEMICALS, N.O.S. RQ: Not applicable.
ICAO/IATA Classification	Proper Shipping Name: CHEMICALS, N.O.S. RQ: Not applicable.

+ Section 15. Regulatory Information

U.S. Federal Regulations	TSCA 8(b) inventory: Sodium Borate, Decahydrate SARA 302/304/311/312 extremely hazardous substances: No products were found.
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SARA 302/304 emergency planning and notification: No products were found.
 SARA 302/304/311/312 hazardous chemicals: Sodium Borate, Decahydrate
 SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Sodium Borate, Decahydrate:
 Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard
 SARA 313 toxic chemical notification and release reporting: No products were found.
 Clean Water Act (CWA) 307: No products were found.
 Clean Water Act (CWA) 311: No products were found.
 Clean air act (CAA) 112 accidental release prevention: No products were found.
 Clean air act (CAA) 112 regulated flammable substances: No products were found.
 Clean air act (CAA) 112 regulated toxic substances: No products were found.
 Class D-2B: Material causing other toxic effects (TOXIC).
 CEPA DSL: Sodium Borate, Decahydrate
 This product has been classified in accordance with the hazard criteria of the Controlled Product Regulations and the MSDS contains all required information.

WHMIS (Canada)

International Regulations

EINECS

DSCL (EEC)

International Lists

Not available.
 R37/38- Irritating to respiratory system and skin.
 R41- Risk of serious damage to eyes.
 Australia (NICNAS): Sodium Borate, Decahydrate

China: Sodium Borate, Decahydrate

Korea (TCCL): Sodium Borate, Decahydrate

Philippines (RA6969): Sodium Borate, Decahydrate

China: Sodium Borate, Decahydrate

State Regulations

Pennsylvania RTK: Sodium Borate, Decahydrate: (generic environmental hazard)

Massachusetts RTK: Sodium Borate, Decahydrate

New Jersey: Sodium Borate, Decahydrate

California prop. 65: No products were found.

Section 16. Other Information

**National Fire
 Protection
 Association
 (U.S.A.)**

Health **2** **1** **0**

Fire Hazard
Reactivity
Specific Hazard