



Material Safety Data Sheet

Section 1. Product and Company Identification

Product Name	Sodium Borate, Decahydrate, GR	Product Code	SX0355
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.	Effective Date	3/10/2006
		Print Date	3/13/2006

For More Information Call

856-423-6300 Technical Service
Monday-Friday: 8:00 AM - 5:00 PM

In Case of Emergency Call

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

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

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	Inhalation. Ingestion.
Potential Acute Health Effects	<p>Eyes Hazardous in case of eye contact (irritant). Inflammation of the eye is characterized by redness, watering, and itching.</p> <p>Skin Hazardous in case of skin contact (irritant). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.</p> <p>Inhalation Hazardous in case of inhalation (lung irritant). May be hazardous in case of inhalation.</p> <p>Ingestion May be hazardous in case of ingestion.</p>
Potential Chronic Health Effects	

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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.
Explosion Hazards in Presence of Various Substances	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 Hazards	Not available.
Special Remarks on Explosion Hazards	Not available.

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Section 6. Accidental Release Measures

Small Spill and Leak	Use appropriate tools to put the spilled solid in a convenient waste disposal container.
Large Spill and Leak	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	Avoid contact with eyes, skin and clothing. Do not ingest. Avoid breathing dust. Keep container closed.
Storage	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.
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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.
LogK_{ow}	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. 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.
WHMIS (Canada)	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.
International Regulations	
EINECS	Not available.
DSCL (EEC)	R37/38- Irritating to respiratory system and skin. R41- Risk of serious damage to eyes.
International Lists	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.

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Section 16. Other Information

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



Changed Since Last
Revision

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Notice to Reader

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