

di-Sodium Tetraborate, Decahydrate, NF, Ph Eur, BP, DAB

Material Safety Data Sheet

Section 1. Product and Company Identification

Product Name di-Sodium Tetraborate, Decahydrate, NF, Ph Eur, BP, DAB **Product Code** 006303

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** 3/3/2003

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 DAMAGE TO THE FOLLOWING ORGANS:
RESPIRATORY TRACT, SKIN, EYE, LENS OR CORNEA.
MAY BE HARMFUL IF INHALED OR SWALLOWED.
MAY CAUSE RESPIRATORY TRACT, EYE AND SKIN IRRITATION.

Routes of Entry Inhalation. Ingestion.

Potential Acute Health Effects

Eyes May be hazardous in case of eye contact (irritant).

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

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

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.

Medical Conditions Aggravated by Repeated or prolonged exposure is not known to aggravate medical condition. Additional information See Toxicological Information (section 11)

Overexposure:

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.
Skin Contact	In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
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.

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. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

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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.

Personal Protection

Eyes Splash goggles.

Body Lab coat.

Respiratory Dust respirator. Be sure to use an approved/certified respirator or equivalent.

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

Belgium Minister of Labour (Belgium, 1998).

VL: 5 mg/m³

DK-Arbejdstylsinet (Denmark, 1996). Skin

GV: 2 mg/m³

INRS (France, 1996).

VME: 5 mg/m³

National Authority for Occupational Safety/Health (Ireland, 1999).

OEL: 5 mg/m³

Arbeidsinspectie (Netherlands, 1999).

TGG 8 uur: 5 mg/m³

N-Arbejdstylsinet (Norway, 1996).

AN: 5 mg/m³

AFS (Sweden, 1996). Skin

KTV: 5 mg/m³

NGV: 2 mg/m³

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

TWA: 5 mg/m³

NIOSH REL (United States, 1994).

TWA: 5 mg/m³ Period: 10 hour(s).

OSHA Final Rule (United States, 1989).

TWA: 10 mg/m³

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	B ₄ -O ₇ .2Na.10H ₂ -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	May be hazardous in case of eye contact (irritant). May be hazardous in case of skin contact (irritant). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering. May be hazardous in case of inhalation (lung irritant). 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.

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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	Not available.
TDG Classification	Not available.
IMO/IMDG Classification	Not available.
ICAO/IATA Classification	Not available.

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: 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.
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Clean air act (CAA) 112 regulated toxic substances: No products were found.

WHMIS (Canada) Not controlled under WHMIS (Canada).

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) R36/37/38– Irritating to eyes, respiratory system and skin.

International Lists Australia (NICNAS): SODIUM BORATE, DECAHYDRATE

Korea (TCCL): SODIUM BORATE, DECAHYDRATE

Philippines (RA6969): SODIUM BORATE, DECAHYDRATE

China: No products were found.

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.)	1	Fire
	20	Hazard
	Health	Reactivity
		Specific Hazard

Changed Since Last Revision +

Notice to Reader

The statements contained herein are based upon technical data that EMD Chemicals Inc. believes to be reliable, are offered for information purposes only and as a guide to the appropriate precautionary and emergency handling of the material by a properly trained person having the necessary technical skills. Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use, storage and disposal of these materials and the safety and health of employees and customers and the protection of the environment. EMD CHEMICALS INC. MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE, WITH RESPECT TO THE INFORMATION HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS.
