

## **MATERIAL SAFETY DATA SHEET**

### **Di-BORON TRIOXIDE (Anhydrous) 98% Extra Pure (Boric Anhydride) MSDS CAS: 1303-86-2**

#### **Section 1: Chemical Product and Company Identification**

##### **Section 1: Chemical Product**

**Product Name:** Di-BORON TRIOXIDE (Anhydrous)

**CAS#:** 1303-86-2

**Synonym:** Not available.

**Chemical Name:** Not available.

**Chemical Formula:** B<sub>2</sub>O<sub>3</sub>

**Brand:** OXFORD

##### **Details Of The Supplier Of The Safety Data Sheet:**

##### **Company identification:**

**OXFORD LAB FINE CHEM LLP**

Unit. No. 12, 1st Floor, Neminath Industrial Estate No. 6,  
Navghar, Vasai (East). Palghar - 401 210.  
Mumbai, Maharashtra, INDIA.

**Tel:** 91-250-2390989

**Tel/Fax:** 91-250-2390032

#### **Section 2: Composition and Information on Ingredients**

##### **Composition:**

Name	CAS #	% by Weight
Di-Boron Trioxide (Anhydrous)	1303-86-2	100%

**Toxicological Data on Ingredients:** Boric anhydride: ORAL (LD50): Acute: 2660 mg/kg [Rat]. 3163 mg/kg [Mouse]. 3450 mg/ kg [Mouse].

## Section 3: Hazards Identification

**Potential Acute Health Effects:** Very hazardous in case of ingestion. Hazardous in case of skin contact (irritant), of eye contact (irritant). Slightly hazardous in case of inhalation.

**Potential Chronic Health Effects:** Very hazardous in case of ingestion. Hazardous in case of skin contact (irritant), of eye contact (irritant). Slightly hazardous in case of inhalation. **CARCINOGENIC EFFECTS:** Not available. **MUTAGENIC EFFECTS:** Not available. **TERATOGENIC EFFECTS:** Not available. **DEVELOPMENTAL TOXICITY:** Not available. The substance is toxic to blood, kidneys, liver.

## 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.

**Serious Skin Contact:** Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention.

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

**Serious Inhalation:** Not available.

**Ingestion:** Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

**Serious Ingestion:** Not available.

## Section 5: Fire and Explosion Data

**Flammability of the Product:** Non-Flammable.

**Auto-Ignition Temperature:** Not available.

## Section 5: Fire and Explosion Data (Continued)

**Flash Points:** Not available.

**Flammable Limits:** Not available.

**Products of Combustion:** Not available.

**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 mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.

**Fire Fighting Media and Instructions:** Not available.

**Special Remarks on Fire Hazards:** Not available.

**Special Remarks on Explosion Hazards:** Not available.

## Section 6: Accidental Release Measures

**Small Spill:** Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

**Large Spill:** 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.

## Section 7: Handling and Storage

**Precautions:** Do not ingest. Do not breathe dust. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes.

**Storage:** Keep container tightly 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:** Safety glasses. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

**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.

**Exposure Limits:** TWA: 10 CEIL: 20 Consult local authorities for acceptable exposure limits.

## Section 9: Physical and Chemical Properties

**Physical state and appearance:** Solid. (Hygroscopic powder.)

<b>Odor</b>	: Not available.
<b>Taste</b>	: Bitter. (Slight.)
<b>Molecular Weight</b>	: 69.62g/mole
<b>Color</b>	: White.
<b>pH (1% soln/water)</b>	: Not applicable.
<b>Boiling Point</b>	: 1860°C (3380°F)
<b>Melting Point</b>	: 450°C (842°F)
<b>Critical Temperature</b>	: Not available.
<b>Specific Gravity</b>	: 2.46 (Water = 1)
<b>Vapor Pressure</b>	: Not applicable.
<b>Vapor Density</b>	: Not available.
<b>Volatility</b>	: Not available.
<b>Odor Threshold</b>	: Not available.
<b>Water/Oil Dist. Coeff.</b>	: Not available.
<b>Ionicity (in Water)</b>	: Not available.
<b>Dispersion Properties</b>	: See solubility in water, methanol.
<b>Solubility</b>	: Partially soluble in cold water, methanol.

## Section 10: Stability and Reactivity Data

**Stability:** The product is stable.

**Instability Temperature:** Not available.

**Conditions of Instability:** Not available.

**Incompatibility with various substances:** Not available.

**Corrosivity:** Non-corrosive in presence of glass.

**Special Remarks on Reactivity:** Not available.

**Special Remarks on Corrosivity:** Not available.

**Polymerization:** Will not occur.

## Section 11: Toxicological Information

**Routes of Entry:** Eye contact. Ingestion.

**Toxicity to Animals:** Acute oral toxicity (LD50): 2660 mg/kg [Rat].

**Chronic Effects on Humans:** Causes damage to the following organs: blood, kidneys, liver.

**Other Toxic Effects on Humans:**

Very hazardous in case of ingestion. Hazardous in case of skin contact (irritant). Slightly hazardous in case of inhalation.

**Special Remarks on Toxicity to Animals:** Not available.

**Special Remarks on Chronic Effects on Humans:** Not available.

**Special Remarks on other Toxic Effects on Humans:** Not available.

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ISO 9001-2008 Certified Company

**Regd Office:** Unit no 12, 1st Floor,  
Neminath Industrial Estate No.6,  
Navghar, Vasai (East), Palghar - 410210.  
Maharashtra, INDIA.

**Tel:** +91 250 2390032 / 2390989 / 2390990  
**Email:** sales@oxfordlabchem.com /  
info@oxfordlabchem.com  
**Web:** www.oxfordlabchem.com



## Section 12: Ecological Information

**Ecotoxicity:** Not available.

**BOD5 and COD:** Not available.

**Products of Biodegradation:** Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

**Toxicity of the Products of Biodegradation:**  
The products of degradation are less toxic than the product itself.

**Special Remarks on the Products of Biodegradation:** Not available.

## Section 13: Disposal Considerations

**Waste Disposal:**

## Section 14: Transport Information

**Land transport (ADR-RID)**

**General information:** Not regulated.

**Sea transport (IMDG) [English only]**

**General information:** Not regulated.

**Air transport (ICAO-IATA) [English only]**

**General information:** Not regulated.

## Section 15: Other Regulatory Information

**Federal and State Regulations:** Pennsylvania RTK: Boric anhydride Massachusetts RTK: Boric anhydride TSCA 8(b) inventory: Boric anhydride

## Section 15: Other Regulatory Information (Continued)

### Other Regulations:

**OSHA:** Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

### Other Classifications:

**WHMIS (Canada):** CLASS D-2B: Material causing other toxic effects (TOXIC).

**DSCL (EEC):** R36/38- Irritating to eyes and skin.

### HMIS (U.S.A.):

**Health Hazard:** 2

**Fire Hazard:** 0

**Reactivity:** 0

**Personal Protection:** E

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

**Health:** 2

**Flammability:** 0

**Reactivity:** 0

**Specific hazard:**

**Protective Equipment:** Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Splash goggles.

## Section 16 - Additional Information

**References:** Not available.

**Other Special Considerations:** Not available.

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**Email:** sales@oxfordlabchem.com /  
info@oxfordlabchem.com  
**Web:** www.oxfordlabchem.com



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