



Material Safety Data Sheet

LA1948
Borax 5 Mol

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Id: LA1948

Product Name: Borax 5 Mol

Synonyms: Neobor ; Sodium tetraborate pentahydrate; disodium tetraborate pentahydrate; borax pentahydrate

Chemical Family: Inorganic borate.

Application: Industrial manufacturing.

Distributed By:

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2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Percentage (W/W)	LD50s and LC50s Route & Species:
Sodium Tetraborate Pentahydrate 12179-04-3	100	Oral LD50 : 2660mg/kg (Rat)

Note: No additional remark.

3. HAZARDS IDENTIFICATION

Potential Acute Health Effects:

Eye Contact: Not irritating to eyes.

Skin Contact: Not irritating to skin.

Inhalation: Inhalation of dust may irritate nose and throat.

Ingestion: Low toxicity. Small amounts swallowed incidental to normal handling operations are not likely to cause injury. Swallowing larger amounts may cause gastrointestinal symptoms.

4. FIRST AID MEASURES

Eye Contact: Flush eyes with gently flowing water for at least 30 minutes or until the chemical is removed, while holding the eyelid(s) open. Take care not to rinse the contaminated water into the unaffected eye or face. Seek immediate medical attention.

Skin Contact: Wash with soap and water.

Inhalation: Remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, get immediate medical attention.

Ingestion: Do NOT induce vomiting. Never give anything by mouth to an unconscious or convulsing person. Seek immediate medical attention. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs.

Notes to Physician: Observation only is required for adult ingestion in the range of 4-8 grams of product. For ingestion of larger amounts, maintain adequate kidney function and force fluids. Gastric lavage is recommended for symptomatic patients only. Hemodialysis should be reserved for massive acute ingestion or patients with renal failure. Boron analyses of urine or blood are only useful for documenting exposure and should not be used to evaluate severity of poisoning or to guide treatment.

5. FIRE FIGHTING MEASURES

Flash Point: None.

Flash Point Method: Not applicable.

Autoignition Temperature: Not available.

Flammable Limits in Air (%): Not Available.

Extinguishing Media: Use extinguishing media appropriate for surrounding fire.

Special Exposure Hazards: Not flammable. This product is a flame retardant.

Hazardous Decomposition/Combustion Materials (under fire conditions): None.

Special Protective Equipment: Fire fighters should wear full protective clothing, including self-contained breathing equipment.

NFPA RATINGS FOR THIS PRODUCT ARE: HEALTH 0, FLAMMABILITY 0, INSTABILITY 0

HMIS RATINGS FOR THIS PRODUCT ARE: HEALTH 1, FLAMMABILITY 0, REACTIVITY 0

6. ACCIDENTAL RELEASE MEASURES

Personal Precautionary Measures: Wear appropriate protective equipment.

Environmental Precautionary Measures: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. Consult local authorities.

Procedure for Clean Up: Scoop up or vacuum up and place in an appropriate closed container. Water spill: Where possible, remove any intact containers from the water. Advise 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 natural environmental background level.

7. HANDLING AND STORAGE

Handling: 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.

Storage: Dry to avoid tendency of product to cake. Keep containers tightly closed. Store at ambient temperature. Protect against moisture. Store in accordance with good industrial practices.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls:

Localized ventilation should be used to control dust levels.

Respiratory Protection: Use a NIOSH approved dust respirator.

Gloves:

Gloves are not required for normal industrial exposures, but may be warranted if environment is excessively dusty.

Skin Protection: Normal work coveralls.

Eyes: Chemical goggles.

Other Personal Protection Data: Ensure that eyewash stations and safety showers are proximal to the work-station location.

Ingredients	Exposure Limit - ACGIH	Exposure Limit - OSHA	Immediately Dangerous to Life or Health - IDLH
Sodium Tetraborate Pentahydrate	6 mg/m ³ STEL 2 mg/m ³ TLV-TWA	10 mg/m ³ TWA	Not Available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Crystalline Solid

Colour: White

Odour: Odourless

pH 9.3 (3% solution)

Specific Gravity: 1.81

Boiling Point: Not Available.

Freezing/Melting Point: 200°C / 392°F (heated in closed space)

Vapour Pressure: Negligible @ 20°C

Vapour Density: Not Available.

% Volatile by Volume: Not Available.

Evaporation Rate: Not Available.

Solubility: 3.8% @ 20°C; 51.2% @ 100°C.

VOCs: Not Available.

Viscosity: Not Available.

Molecular Weight: 291.35

Other: Not Available.

10. STABILITY AND REACTIVITY

Chemical Stability: Stable.

Hazardous Polymerization: Will not occur.

Conditions to Avoid: Borax is a stable product, but when heated it loses water, eventually forming anhydrous borax.

Materials to Avoid: Reaction with strong reducing agents, such as metal hydrides or alkali metals, will generate hydrogen gas, which could create an explosive hazard.

Hazardous Decomposition Products: None anticipated

Additional Information:

No additional remark.

11. TOXICOLOGICAL INFORMATION

Principle Routes of Exposure

Ingestion: Low toxicity. Small amounts swallowed incidental to normal handling operations are not likely to cause injury. Swallowing larger amounts may cause gastrointestinal symptoms.

Skin Contact: Not irritating to skin.

Inhalation: Inhalation of dust may irritate nose and throat.

Eye Contact: Not irritating to eyes.

Additional Information:

Acute Test of Product:

Acute Oral LD50: Not Available.

Acute Dermal LD50: Not Available.

Acute Inhalation LC50: Not Available.

Carcinogenicity:

Ingredients	IARC - Carcinogens	ACGIH - Carcinogens
Sodium Tetraborate Pentahydrate	Not listed.	A4

Carcinogenicity Comment: No additional information available.

Reproductive Toxicity/ Teratogenicity/ Embryotoxicity/ Mutagenicity:

Animal feeding studies in rat, mouse and dog, at high doses, have demonstrated effects on fertility and testes . Boric acid studies in rat, mouse and rabbit, at high doses, demonstrate developmental effects on the fetus, including fetal weight loss and minor skeletal variations. The doses administered were many times in excess of those to which humans would normally be exposed.

12. ECOLOGICAL INFORMATION

Ecotoxicological Information:

Ingredients	Ecotoxicity - Fish Species Data	Acute Crustaceans Toxicity:	Ecotoxicity - Freshwater Algae Data
Sodium Tetraborate Pentahydrate	Not Available.	Not Available.	Not Available.

Other Information: General: Boron (B) is the element in sodium tetraborate pentahydrate (Borax) which is used by convention to report borate product ecological effects. It occurs naturally in sea-water at an average concentration of 5 mg B/L and generally occurs in fresh water at concentrations up to 1 mg B/L. In dilute aqueous solutions the predominant boron species present is undissociated boric acid. To convert sodium tetraborate pentahydrate into the equivalent boron (B) content, multiply by 0.1484.

Phytotoxicity: 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 Borax released to the environment.

Persistence/degradation: Boron is naturally occurring and ubiquitous in the environment. Borax decomposes in the environment to natural borate. In aqueous solution Sodium tetraborate pentahydrate is converted substantially into undissociated boric acid. Soil mobility: Borax is soluble in water and is leachable through normal soil.

13. DISPOSAL CONSIDERATIONS

Disposal of Waste Method: Disposal of all wastes must be done in accordance with municipal, provincial and federal regulations.

Contaminated Packaging: Empty containers should be recycled or disposed of through an approved waste management facility.

14. TRANSPORT INFORMATION

DOT (U.S.):

DOT Shipping Name: Not Regulated.

DOT Hazardous Class Not Applicable.

DOT UN Number: Not Applicable.

DOT Packing Group: Not Applicable.

DOT Reportable Quantity (lbs): Not Available.

Note: No additional remark.

Marine Pollutant: No.

TDG (Canada):

TDG Shipping Name: Not Regulated.

Hazard Class: Not Applicable.

14. TRANSPORT INFORMATION

UN Number: Not Applicable.

Packing Group: Not Applicable.

Note: No additional remark.

Marine Pollutant: No.

15. REGULATORY INFORMATION

U.S. TSCA Inventory Status: All components of this product are either on the Toxic Substances Control Act (TSCA) Inventory List or exempt.

Canadian DSL Inventory Status: All components of this product are either on the Domestic Substances List (DSL), the Non-Domestic Substances List (NDSL) or exempt.

Note: Not available.

U.S. Regulatory Rules

Ingredients	CERCLA/SARA - Section 302:	SARA (311, 312) Hazard Class:	CERCLA/SARA - Section 313:
Sodium Tetraborate Pentahydrate	Not Listed.	Not Listed.	Not Listed.

California Proposition 65: Not Listed.

MA Right to Know List: Listed.

New Jersey Right-to-Know List: Not Listed.

Pennsylvania Right to Know List: Not Listed.

WHMIS Hazardous Class:

D2A VERY TOXIC MATERIALS



16. OTHER INFORMATION

Additional Information:

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

Disclaimer:

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END OF MSDS