



Distributed by:
Laguna Clay Company
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Material Safety Data Sheet

Borax 10 Mol

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Id: LA1995

Product Name: Borax 10 Mol

Synonyms: None

Chemical Family: None Known

Application: Industrial manufacturing.

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Prepared By: The Environment, Health and Safety Department of Univar Canada Ltd.

Preparation date of MSDS: 23/Apr/2014

Telephone number of preparer: 1-866-686-4827

24-Hour Emergency Telephone Number (CANUTEC): (613) 996-6666

2. HAZARDS IDENTIFICATION

Potential Acute Health Effects:

Eye Contact: May cause eye irritation.

Skin Contact: Not irritating to skin.

Inhalation: High concentrations of dust may cause coughing and mild, temporary irritation.

Ingestion: Small amounts swallowed incidental to normal handling operations are not likely to cause injury. Swallowing larger amounts may cause gastrointestinal symptoms. May cause abdominal discomfort, nausea, vomiting and diarrhea.

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Ingredients | Percentage (W/W) | LD50s and LC50s Route & Species: |
|---|------------------|----------------------------------|
| Disodium Tetraborate Decahydrate 1303-96-4 | 100 | Not available. |

Note: No additional remark.

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: Move person to fresh air.

Ingestion: Swallowing small quantities (one teaspoon) will cause no harm to healthy adults. If larger amounts are swallowed, seek medical attention.

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: This product is a flame retardant.

Hazardous Decomposition/Combustion Materials (under fire conditions): Not available.

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: Borax is a water-soluble, white powder that may, at high concentrations, cause damage to trees or vegetation by root absorption. 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: For industrial use only. Handle and open containers with care. Avoid contact with eyes, skin and clothing. Do not ingest. Avoid inhalation of chemical. Empty containers may contain hazardous product residues. Keep the containers closed when not in use. Protect against physical damage. Use appropriate personnel protective equipment. To maintain package integrity and to minimize caking of the product, bags should be handled on a first-in, first-out basis.

Storage: Keep containers tightly closed. Protect against moisture.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls:

Localized ventilation should be used to control dust levels.

Respiratory Protection: If exposure exceeds occupational exposure limits, use an appropriate NIOSH-approved respirator.

Gloves:

No special protection needed.

Skin Protection: Cotton-blend coveralls.

Eyes: Safety glasses (with side shields).

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 |
|----------------------------------|---|--------------------------|--|
| Disodium Tetraborate Decahydrate | 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

Color: White

Odor: Odorless

pH 9.2 (1% solution @ 20 °C)

Specific Gravity: 1.71

Boiling Point: Not Available.

Freezing/Melting Point: 62°C / 144°F

Vapor Pressure: Negligible

Vapor Density: Not Available.

% Volatile by Volume: Not Available.

Evaporation Rate: Not Available.

Solubility: Water: 4.715 @ 20°C ; 65.64% @ 100°C

VOCs: Not Available.

Viscosity: Not Available.

Molecular Weight: 381.37

Other: Not Available.

10. STABILITY AND REACTIVITY

Chemical Stability: Stable.

Hazardous Polymerization: Will not occur.

Conditions to Avoid: When heated it loses water, eventually forming anhydrous borax.

Materials to Avoid: Strong reducing agents. 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 known

Additional Information:

No additional remark.

11. TOXICOLOGICAL INFORMATION

Principle Routes of Exposure

Ingestion: Small amounts swallowed incidental to normal handling operations are not likely to cause injury. Swallowing larger amounts may cause gastrointestinal symptoms. May cause abdominal discomfort, nausea, vomiting and diarrhea.

Skin Contact: Not irritating to skin.

Inhalation: High concentrations of dust may cause coughing and mild, temporary irritation.

Eye Contact: May cause eye irritation.

Additional Information: Symptoms of accidental over-exposure to product might include nausea, vomiting and diarrhea, with delayed effects of skin redness and peeling.

Acute Test of Product:

Borax 10 Mol

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Acute Oral LD50: Not Available.
Acute Dermal LD50: Not Available.
Acute Inhalation LC50: Not Available.

Carcinogenicity:

| Ingredients | IARC - Carcinogens | ACGIH - Carcinogens |
|----------------------------------|--------------------|---------------------|
| Disodium Tetraborate Decahydrate | Not listed. | A4 |

Carcinogenicity Comment: No additional information available.

Reproductive Toxicity/ Teratogenicity/ Embryotoxicity/ Mutagenicity: Animal ingestion studies in several species, at high doses, indicate that borates cause reproductive and developmental effects. A human study of occupational exposure to borate dust showed no adverse effect on reproduction. The substance may be toxic to testes. 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 |
|----------------------------------|--|--|--|
| Disodium Tetraborate Decahydrate | Dab, <i>Limanda limanda</i> 96-hr LC 50 = 74 mg B/L Rainbow trout, <i>S. gairdneri</i> (embryo-larval stage) 24-day LC 50 = 88 mg B/L 32-day LC 50 = 54 mg B/L Goldfish, <i>Carassius auratus</i> (embryo-larval stage) 7-day LC 50 = 65 mg B/L 3-day LC 50 = 71 mg B/L | Daphnids, <i>Daphnia magna</i> straus 24-hr EC 50 = 242 mg B/L | Green algae, <i>Scenedesmus subspicatus</i> 96-hr EC 10 = 24 mg |

Other Information: General: Boron (B) is the element in sodium tetraborate decahydrate (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 dissociated boric acid. To convert sodium tetraboratedecahydrate into the equivalent boron (B) content, multiply by 0.1134. 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 decahydrate is converted substantially into dissociated 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.

14. TRANSPORT INFORMATION

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.
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: |
|----------------------------------|----------------------------|-------------------------------|----------------------------|
| Disodium Tetraborate Decahydrate | Not Listed. | Not Listed. | Not Listed. |

California Proposition 65: Not Listed.
MA Right to Know List: Listed.
New Jersey Right-to-Know List: Listed.
Pennsylvania Right to Know List: 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:

NOTICE TO READER:

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Do not use ingredient information and/or ingredient percentages in this MSDS as a product specification. For product specification information refer to a Product Specification Sheet and/or a Certificate of Analysis. These can be obtained from Laguna Clay Company info@lagunaclay.com.

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*****END OF MSDS*****