

MATERIAL SAFETY DATA SHEET FOR

December 2003

LIQUID BORON

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1.0 Introduction

Statement of Hazardous Nature:

Not classified as hazardous according to the criteria of NZS 5433:1999. Triggers the HSNO Act 1996 thresholds for eye irritancy (6.4A), reproductive/developmental effects (6.8B) and aquatic toxicity (9.1D).

Company Details:

Company: Osmoste New Zealand
Street Address: 14 Mayo Road, Wiri, Auckland, New Zealand
Postal Address: PO Box 88-048, Clendon Town, Auckland, New Zealand
Telephone No: (09) 277-7770
Emergency Telephone No: 0800 200 162

2.0 Product Identification

Product Name: Liquid Boron
Other Names: Disodium octaborate tetrahydrate, Polybor, Timbor, L-Bor
UN Number: None allocated
Dangerous Goods Class: Not applicable
Hazchem Code: 1[Z]
Subsidiary Risk: Not applicable
Toxic Substances Schedule: Not Listed
NFPA: (Health: 2) - (Flammability: 0) - (Reactivity: 1)
Packaging Group: Not applicable
IMDG: Not applicable
Manufacturer: Osmoste New Zealand
Use: Insecticide and fungicide for timber treatment

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Physical Description/Properties:

Appearance:	Clear colourless, odourless liquid
Form:	An aqueous solution of boric acid and borax
Boiling Point:	Not available
Melting Point:	Not available
Vapour pressure:	Not applicable
Vapour density:	Not applicable
Volatile Component:	Not available
Specific gravity:	1.05 -1.20 g/mL
Flash Point:	Not applicable
Flammability Limits:	Not applicable
Autoignition Temp:	Not applicable
Solubility in water:	Infinite

Ingredients:

<u>Chemical Entity</u>	<u>CAS. no.</u>	<u>Proportion</u>
Disodium Octaborate Tetrahydrate	12008-41-2	10 - 50 %w/w
Water	7732-18-5	Balance

3.0 HEALTH HAZARD INFORMATION

Acute Effects:

Swallowed	May be harmful if swallowed. May cause nausea, vomiting, diarrhoea and abdominal pain.
Eye	Irritating to eyes
Skin	May be irritating to skin. Repeated or prolonged exposure may lead to dermatitis.
Inhaled	May be irritating by inhalation. Inhalation of mist may cause irritation of the throat and respiratory tract. Prolonged occupational exposure can lead to coughing, nose bleeds and shortness of breath.

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Chronic Effects:

Chronic over-exposure to boron compounds may cause hair loss, weight loss and diarrhoea.

First Aid:

Swallowed: If swallowed give water to dilute. Do not induce vomiting. If swallowed, and if more than 15 minutes for a hospital, induce vomiting, preferably using Ipecac syrup APF. Take to a doctor or hospital immediately.

Eye: In case of contact with eyes, rinse immediately with plenty of water for a minimum of 15 minutes and contact a doctor or Poisons Information Centre (0800 764 766).

Skin: After contact with skin, wash immediately with plenty of warm soapy water. Seek medical assistance if large area involved.

Inhaled: Remove victim to fresh air. Lay patient down and keep warm and rested. If breathing is shallow or has stopped, ensure airway is clear and apply resuscitation. Seek medical assistance.

First Aid Facilities:

Ensure an eye-wash and safety shower are available and ready to use.

Advice to Doctor:

Give fluids and induce emesis if large amount ingested. If vomiting is severe, administration of intravenous fluids and electrolytes may be necessary (in children use hypotonic electrolyte in glucose solution.)

4.0 PRECAUTIONS FOR USE

Exposure Standards:

Workplace Exposure Standards:	TWA	STEL
Borax:	1mg/m ³	
None assigned for Liquid Boron.		

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Engineering Controls:

Good ventilation required. Local exhaust should be provided if handled in confined areas.

Personal Protection:

Wear eye protection in the form of goggles, PVC or rubber gloves, PVC boots and overalls when manufacturing or handling the concentrated product.

A dust/mist respirator should be used during any spraying operations.

Flammability:

Non-flammable. Decomposes on heating emitting toxic sodium oxide fumes.

5.0 SAFE HANDLING INFORMATION

Storage and Transport:

Road Transport:	Not listed in NZS 5433:1999
Sea Transport:	Not listed in IMDG code 1990
Storage:	Store away from foodstuffs at all times.

Spills and Disposal:

Wear protective clothing as above.

Do not allow to enter sewers, drains or watercourses. Contain spill by absorbing with sand, earth or other absorbent material. Wash down spill area with copious quantities of water. Waste and empty containers must be disposed of in accordance with local government regulations. Dispose of by liaising with a waste disposal company or by disposing at a site approved by relevant local authorities.

Triple rinse empty containers with water and return washings to treatment tank.

Reactivity Data:

Reacts with strong reducing agents such as metal anhydrides or alkali metals to generate hydrogen gas.

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Fire/Explosion Hazard:

Non-combustible. Decomposes on heating to give toxic fumes of sodium oxide. If safe to do so remove containers from path of fire or cool containers with water spray. Fire fighters should wear self-contained breathing apparatus if there is risk of exposure to vapour or decomposition products. Use extinguishment appropriate to the burning material. Contain runoff.

6.0 ADDITIONAL INFORMATION

Toxicity Data:

Disodium octaborate tetrahydrate: Oral LD₅₀ (rat) - 2000 mg/kg
Oral LD₅₀ (guinea pig) - 5300 mg/kg

Environment:

Prevent spillages from entering waterways. Liquid Boron is slightly harmful to the aquatic environment.

CONTACT POINTS:

OSMOSE HEAD OFFICE NORMAL HOURS: (09) 277-7770
OSMOSE 24 HOUR EMERGENCY NUMBER: 0800 200 162

IN AN EMERGENCY, DIAL 111 - FIRE OR POLICE
24 hr Emergency No: National Poisons Centre Phone: 0800 764 766