SAFETY DATA SHEET

Section 1. Identification of the material and the supplier

Product:	**Oligo Borax 11%**
Product Use:	Fertilizer. Fertilizer: raw material. Cleaning products
Restriction of Use:	Refer to Section 15
New Zealand Supplier:	Horticentre Ltd
Address:	10 Firth Street Drury, 2113
Telephone:	+64 9 294 8453
Fax Number:	+64 9 294 7272
Emergency Telephone:	**0800 764 766 (National Poison Centre)**
Date of SDS Preparation:	10 March 2022

Section 2. Hazards Identification

This substance is hazardous according to the EPA Hazardous Substances (Classification) Notice 2020.

EPA Approval No: HSR002914

Pictograms

Signal Word: **DANGER**

GHS Classification and Category	Hazard Code	Hazard Statement
Eye irritation Cat. 2	H319	Causes serious eye irritation.
Reproductive toxicity Cat. 1	H360	May damage fertility or the unborn child.
Designed for biocidal action		Designed for biocidal action

Prevention Code	Prevention Statement
P103	Read label before use.
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P264	Wash hands thoroughly after handling.
P280	Wear protective clothing as detailed in Section 8.
P281	Use personal protective equipment as required.

Response Code	Response Statement
P305 +	IF IN EYES: Rinse cautiously with water for several minutes. Remove

P351+P338	contact lenses, if present and easy to do. Continue rinsing.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.

Storage Code	**Storage Statement**
P405	Store locked up.

Disposal Code	**Disposal Statement**
P501	Dispose of according to Local Regulations or Authorities

Section 3. Composition / Information on Ingredients

Ingredients	Wt%	CAS NUMBER.
Disodium tetraborate, decahydrate	>99	1303-96-4

Section 4. First Aid Measures

Routes of Exposure:

If in Eyes — Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Take victim to an ophthalmologist if irritation persists.

If on Skin — Rinse with water. Do not apply (chemical) neutralizing agents. Remove all contaminated clothing and footwear. If on skin and if skin irritation or rash occurs, seek medical advice and attention.

If Swallowed — Rinse mouth with water. If victim conscious and alert, give 1-2 glasses of water to drink. Immediately call a POISON CENTER/doctor. Ingestion of large quantities: immediately to hospital.

If Inhaled — Remove person to fresh air. Remove contaminated clothing and loosen remaining clothing. Allow person to assume most comfortable position and keep warm. Keep at rest until fully recovered. Get medical advice if breathing becomes difficult.

Most important symptoms and effects, both acute and delayed

Symptoms:

Inhalation: EXPOSURE TO HIGH CONCENTRATIONS: Dry/sore throat. Coughing. Irritation of the respiratory tract. Irritation of the nasal mucous membranes.

Ingested: AFTER INGESTION OF HIGH QUANTITIES: Irritation of the gastric/intestinal mucosa. Nausea. Vomiting. Diarrhoea.

Skin: Not applicable.

Eye: Causes serious eye irritation. Redness of the eye tissue.

Advice to Doctor: Treat symptomatically.

Section 5. Fire Fighting Measures

Hazard Type	The product is non-flammable and non-combustible.
Explosion hazard	No direct explosion hazard.
Hazards from products	The product is itself a flame retardant. Reactivity in case of fire : Reacts violently with (strong) reducers
Suitable Extinguishing media	All extinguishing media allowed. Extinguishing media for surrounding fires.
Precautions for firefighters and special protective	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire- fighters (including helmets,

clothing	protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. Exposure to fire/heat: keep upwind, consider evacuation and have neighbourhood close doors and windows. Cool tanks/drums with water spray/remove them into safety. Dilute toxic gases with water spray. Take account of toxic fire-fighting water. Use water moderately and if possible collect or contain it.
HAZCHEM CODE	**None allocated**

Section 6. Accidental Release Measures

Ensure adequate air ventilation. Avoid all eye and skin contact and do not breathe vapour and mist. Wear PPE as detailed in Section 8. Keep unnecessary and unprotected personnel from entering.

Prevent soil and water pollution. Prevent spreading in sewers.

Any spillage should be cleaned up immediately. Stop leaks if possible. Dam up the solid spill. Contain released product, pump into suitable containers. Knock down/dilute dust cloud with water spray.
Take up mechanically, placing in appropriate containers for recovery or disposal. After cleaning, flush traces away with water. Do not wash out with water in a sensitive environment.
Dispose the product, depending on the degree and type of contamination, either as fertilizer or in an authorized waste disposal site.

Section 7. Handling and Storage

Precautions for Handling:

- Read label before use.
- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Do not get in eyes, on skin, or on clothing.
- Avoid raising dust.
- Avoid breathing dust and use sufficient ventilation.
- Avoid all eye and skin contact.
- Wash hands thoroughly after handling.
- Wear protective clothing as detailed in Section 8.
- Use personal protective equipment as required.

Precautions for Storage:

- Store locked up.
- Store in dry, well-ventilated area away from sources of ignition and direct sunlight.
- Keep only in the original container.
- Store at ambient temperatures.
- Store away from(strong) acids, reducing agents and water/moisture.
- Unauthorized persons are not admitted.
- Secure fragile packaging's in solid containers.
- Packaging Materials: paper, paper with plastic inner lining, plastics

Section 8 Exposure Controls / Personal Protection

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

	TWA		STEL	
Substance	**ppm**	**mg/m³**	**ppm**	**mg/m³**
Borates, tetra, sodium salts [1303-96-4]	-	5	-	-

Workplace Exposure Standard – Time Weighted Average (WES-TWA). The time-weighted average exposure standard designed to protect the worker from the effects of long-term exposure. Workplace Exposure Standard – Short-Term

Exposure Limit (WESSTEL). The 15-minute average exposure standard. Applies to any 15- Minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWA; both the short-term and time-weighted average exposures apply. Workplace Exposure Standards and Biological Exposure Indices NOV 2020 12TH EDITION.

Oligo Borax 11% (1303-96-4)	
DNEL/DMEL (Workers)	
Acute - local effects, inhalation	11,7 mg/m³
Long-term - systemic effects, dermal	316,4 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	6,7 mg/m³
Long-term - local effects, inhalation	11,7 mg/m³
DNEL/DMEL (General population)	
Acute - systemic effects, oral	0,79 mg/kg bodyweight
Acute - local effects, inhalation	11,7 mg/m³
Long-term - systemic effects,oral	0,79 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	3,4 mg/m³
Long-term - systemic effects, dermal	159,5 mg/kg bodyweight/day
Long-term - local effects, inhalation	11,7 mg/m³
PNEC (Water)	
PNEC aqua (freshwater)	1,35 mg/l
PNEC aqua (marine water)	1,35 mg/l
PNEC aqua (intermittent, freshwater)	9,1 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	1,8 mg/kg dwt
PNEC sediment (marine water)	1,8 mg/kg dwt
PNEC (Soil)	
PNEC soil	5,4 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	1,75 mg/l

Engineering Controls

If user operations generate dust/fog, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Personal Protection Equipment

Eyes	Safety glasses. In case of dust production: protective goggles.
Hands	**Type** / **Material** / **Permeation** / **Thickness (mm)** / **Standard**: Reusable gloves / Nitrile rubber (NBR), Butyl rubber, PVC / 6 (> 480 min) / / EN ISO 374
Skin	Wear suitable protective clothing.
Respiratory	Dust production or handling large quantities of product: dust mask with filter type P2 or P3. High dust production: self-contained breathing apparatus.

Section 9 Physical and Chemical Properties

Appearance	Crystalline solid. Crystalline powder. Grains.
Colour	White to grey
Odour	Odourless
Odour Threshold	Not available
pH	9 (5.0%)
Boiling Point	Not available
Melting Point	75^{0}C

Freezing Point	Not available
Flash Point	Not available
Flammability	Not flammable
Upper and Lower Explosive Limits	Not available
Vapour Pressure	<0.1 hPa
Vapour Density	Not available
Relative Density	1.7
Density	1.73 kg/l
Solubilities Water	Moderately soluble in water. Soluble in glycerol. 6g/100ml
Log Pow	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	320 °C
Viscosity, dynamic	0.015 Pa.s (@ 75% w/w/, 20 °C)
Particle Characteristics	Not available
Other Properties	Hygroscopic. Basic reaction.

Section 10. Stability and Reactivity

Stability of Substance	Stable under normal conditions.
Reactivity	Reacts violently with (strong) reducers.
Conditions to Avoid	Material is hygroscopic. Prevent moisture contact.
Incompatible Materials	Reducing agents.
Hazardous Decomposition Products	On burning formation of metallic fumes.

Section 11 Toxicological Information

Acute Effects:

Swallowed	Not applicable. LD50 rat = 2660mg/kg
Dermal	Not applicable. LD50 rabbit = >2000mg/kg
Inhalation	Not applicable.
Eye	Causes serious eye irritation.
Skin	Not applicable.

Chronic Effects:

Carcinogenicity	Not applicable.
Reproductive Toxicity	May damage fertility or the unborn child.
Germ Cell Mutagenicity	Not applicable.
Aspiration	Not applicable.
STOT/SE	Not applicable.
STOT/RE	Not applicable.

Section 12. Ecotoxicological Information

Designed for biocidal action.

Ecology - water: Mild water pollutant (surface water). Ground water pollutant. Maximum concentration in drinking water: 200 mg/l (sodium) (Directive 98/83/EC). Slightly harmful to fishes (LC50(96h) 100-1000 mg/l). Slightly harmful to invertebrates (EC50: 100 - 1000 mg/l).

Slightly harmful to algae (EC50: 100 - 1000 mg/l). pH shift. Not harmful to activated sludge. Inhibition of activated sludge.

Oligo Borax 11% (1303-96-4)	
LC50 fishes 1	100 - 1000 mg/l (96 h; Pisces)
LC50 other aquatic organisms 1	100 - 1000 mg/l (96 h)
EC50 Daphnia 1	141 mg/l (48 h; Daphnia magna)
LC50 fish 2	1900 mg/l (Pimephales promelas)
Threshold limit other aquatic organisms 1	100 - 1000,96 h; Protozoa; ANHYDROUS FORM
Threshold limit other aquatic organisms 2	1 mg/l (72 h; Rana sp.)
Threshold limit algae 1	158 mg/l (96 h; Scenedesmus subspicatus; ANHYDROUS FORM)

Persistence and degradability	In accordance with column 2 of REACH Annex VII, the ready biodegradability test does not need to be conducted as the substance is inorganic.
Bioaccumulation	Not bioaccumulative
Mobility in Soil	Ecology – Soil - May be harmful to plant growth, blooming and fruit formation.
Other adverse effects	Avoid release to the environment.

Section 13. Disposal Considerations

Disposal methods: Triple rinse and dispose of according to Local Regulations.

Precautions or conditions to avoid: Avoid release to the environment

Section 14 Transport Information

This product is NOT classified as a Dangerous Good for transport in NZ; NZS 5433:2012

Section 15 Regulatory Information

EPA Approval Code: **HSR002914**

HSWA & EPA Controls	**Trigger Quantity**
Certified Handler	Not required
Location Certificate	Not required
Tracking Trigger Quantities	Not required
Signage Trigger Quantities	Not required
Emergency Response Plan	10 000L
Secondary Containment	10 000L
Restriction of Use	None

Section 16 Other Information

Glossary

Cat	Category
EC_{50}	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
LC_{50}	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LD_{50}	Lethal dose to kill 50% of test animals/organisms.
LEL	Lower explosive level.
OSHA	American Occupational Safety and Health Administration.
TEL	Tolerable Exposure Limit.
TLV	Threshold Limit Value-an exposure limit set by responsible authority.
UEL	Upper Explosive Level

References:

1. EPA Hazardous Substances (Safety Data Sheets) Notice 2017
2. Workplace Exposure Standards and Biological Exposure Indices Nov 2017 edition.
3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
4. Transport of Dangerous goods on land NZS 5433:2012
5. HSW (Hazardous Substances) Regulations 2017

Disclaimer

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Please contact the New Zealand distributor, if further information is required.

Issue Date: 10 March 2022 Review Date: 10 March 2027