

User declaration:- I have read and understood this Safety Data Sheet

Name:- _____ Signature _____ Date _____

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Company Name



Address: 39 Woodside Ave, Northcote, Auckland , New Zealand

Emergency Tel: NZ 0800154666 | Tel +64 9 480 4386 | FAX +64 9 480 4385

| Product | Sodium Tetraborate Decahydrate | | Code | 49901 & 49908 & 49909 | |
|-----------|--------------------------------|------|-------------|-----------------------|--|
| CAS# | HSNO# | UN # | DG Class/es | Packing group # | |
| 1303-96-4 | HSR002914 | n/a | n.a | n/a | |

Recommended use: Laboratory Investigations

2. Hazards Identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Reproductive toxicity (Category 1B), H360FD

For the full text of the H-Statements mentioned in this Section, see Section 16.

Classification according to EU Directives 67/548/EEC or 1999/45/EC

R60, R61

For the full text of the R-phrases mentioned in this Section, see Section 16.

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008



Pictogram

Signal word **Danger**

Hazard statement(s)

H360FD May damage fertility. May damage the unborn child.

Precautionary statement(s)

P201 Obtain special instructions before use.

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

Supplemental Hazard

Statements

None

Restricted to professional users.

2.3 Other hazards - none

Hazard Classification New Zealand:

Classified as Hazardous according to the Hazardous Substances (Minimum Degrees of

Hazard) Regulations 2001, New Zealand.

Not classified as Dangerous Goods for transport according to the New Zealand Standard NZS 5433:2007 Transport of Dangerous Goods on Land.

HSNO Classification:

6.1E - Substance that is acutely toxic (Oral)

6.4A - Substance that is irritating to the eyes

6.8B - Substance that is suspected to be a human reproductive or developmental toxicant

9.1D - Substance that is slightly harmful to the aquatic environment or is otherwise designed for biocidal action

Australia:

Classified as Hazardous according to criteria of National Occupational Health & Safety Commission, Australia (NOHSC).

Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

Hazard statement codes:

H303 May be harmful if swallowed.

H319 Causes serious eye irritation.

H361 Suspected of damaging fertility or the unborn child.

H413 May cause long lasting harmful effects to aquatic life.

Precautionary statement codes - Prevention:

P102 Keep out of reach of children. -This statement applies only where the substance is available to the general public.

P103 Read label before use. -This statement applies only where the substance is available to the general public.

P104 Read Safety Data Sheet before use.

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P264 Wash skin thoroughly after handling.

P273 Avoid release to the environment. -This statement does not apply where this is the intended use.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statement codes - Response:

P101 If medical advice is needed, have product container or label at hand. -This statement applies only where the substance is available to the general public.

P312 Call a POISON CENTER or doctor/physician if you feel unwell.

P331 Do NOT induce vomiting.

P308+P313 IF exposed or concerned: Get medical advice/ attention.

EYES:

P305+P351+P338 Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313 If eye irritation persists: Get medical advice/attention.

Precautionary statement codes - Storage:

P405 Store locked up.

Precautionary statement codes - Disposal:

P501 In the case of a substance that is in compliance with a HSNO approval other than a Part 6A (Group Standards) approval, a label must provide a description of one or more appropriate and achievable methods for the disposal of a substance in accordance with the Hazardous Substances (Disposal) Regulations 2001. This may also include any method of disposal that must be avoided. See Section 13 for disposal details.

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Ingredients | Name | CAS | Proportion |
|-------------|---------------|-----------|------------|
| | Sodium borate | 1303-96-4 | 100 % |

decahydrate

4. FIRST AID MEASURES

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| Inhalation | If inhaled, remove affected person from contaminated area. Keep at rest until recovered. If symptoms persist seek medical attention. |
| Ingestion | Do not induce vomiting. Wash out mouth thoroughly with water. If symptoms develop seek medical attention. |
| Skin | Wash affected area thoroughly with soap and water. If symptoms develop seek medical attention. |
| Eye | If in eyes, hold eyelids apart and flush the eyes continuously with running water. Continue flushing for several minutes until all contaminants are washed out completely. If symptoms develop and persist seek medical attention. |
| First Aid Facilities | Eye wash and normal washroom facilities. |
| Advice to Doctor | Treat symptomatically. |
| Other Information | For advice in an emergency, contact a Poisons Information Centre (Phone Australia 13 1126; New Zealand 0800 POISON / 0800 764 766) or a doctor at once. |

5. FIRE FIGHTING MEASURES

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| Suitable Extinguishing Media | Foam, dry chemical powder, carbon dioxide, water spray or water fog. |
| Specific Hazards | None. The product is itself a flame retardant. |
| Precautions in connection with Fire | Fire fighters should wear Self-Contained Breathing Apparatus (SCBA) operated in positive pressure mode and full protective clothing to prevent exposure to vapours or fumes. Water spray may be used to cool down heat-exposed containers. Fight fire from safe location. This product should be prevented from entering drains and watercourses. |

6. ACCIDENTAL RELEASE MEASURES

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| Emergency Procedures | Increase ventilation. Evacuate all unprotected personnel. Wear sufficient respiratory protection and full protective clothing to prevent exposure. Sweep up material avoiding dust generation or dampen spilled material with water to avoid airborne dust, then transfer material to a suitable container. Wash surfaces well with soap and water. Seal all wastes in labelled plastic containers for subsequent recycling or disposal. Dispose of waste according to the applicable local and national regulations. If contamination of sewers or waterways occurs inform the local water and waste management authorities in accordance with local regulations. |
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7. HANDLING AND STORAGE

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| Precautions for Safe Handling | Use only in a well ventilated area. Keep containers sealed when not in use. Prevent the build up of dust in the work atmosphere. Avoid inhalation of dust, and skin or eye contact. Maintain high standards of personal hygiene i.e. Washing hands prior to eating, drinking, smoking or using toilet facilities. |
| Conditions for Safe Storage | Store in a cool, dry, well-ventilated area, out of direct sunlight and moisture. Store in labelled, corrosion-resistant containers. Keep containers tightly closed. Store away from bases, water and other incompatible materials. Have appropriate fire extinguishers available in and near the storage area. Ensure that storage conditions comply with applicable local and national regulations. |

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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| National Exposure Standards | <p>Australian National Occupational Health And Safety Commission (NOHSC) Exposure Standards: Substance TWA STEL ppm mg/m³ ppm mg/m³ Sodium borate decahydrate - 5 - -</p> <p>New Zealand Occupational Safety and Health Service (OSH) Workplace Exposure Standards: Substance TWA STEL ppm mg/m³ ppm mg/m³ Sodium borate decahydrate - 5 - -</p> <p>TWA (Time Weighted Average): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day week. STEL (Short Term Exposure Limit): The average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday.</p> |
| Biological Limit Values | No biological limit allocated. |
| Engineering Controls | Provide sufficient ventilation to keep airborne levels below the exposure limits. Where vapours or mists are generated, particularly in enclosed areas, and natural ventilation is inadequate, a local exhaust ventilation system is required. |
| Respiratory Protection | If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable dust/particulate filter should be used. Reference should be made to Australian/New Zealand Standards AS/NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances. |
| Eye Protection | Safety glasses with side shields or chemical goggles should be worn. Final choice of appropriate eye/face protection will vary according to individual circumstances. Eye protection devices should conform with Australian/New Zealand Standard AS/NZS 1337 - Eye Protectors for Industrial Applications. |
| Hand Protection | Wear gloves of impervious material. Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken. Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance. |
| Body Protection | Suitable protective work wear, e.g. cotton overalls buttoned at neck and wrist is recommended. Chemical resistant apron is recommended where large quantities are handled. |

9. PHYSICAL AND CHEMICAL PROPERTIES

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| Appearance | White, odorless, crystalline solid. |
| Melting Point | 62°C (Heated in closed space) |
| Boiling Point | 1575°C |
| Solubility in Water | Soluble |
| Specific Gravity | 1.71 |
| pH Value | 7.0-9.0 (5% solution) |
| Vapour Pressure | Negligible at 20°C |
| Density | Bulk density: 810 kg/m ³ |
| Flash Point | None |
| Flammability | Non-combustible solid. |
| Auto-Ignition Temperature | Not available |
| Flammable Limits - | Not applicable |

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| Lower Flammable Limits - Upper | Not applicable |
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10. STABILITY AND REACTIVITY

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| Chemical Stability | Stable under normal conditions of handling and storage. |
| Incompatible Materials | Strong oxidising and reducing agents, acids, alkalis and metallic salts. |
| Hazardous Decomposition Products | Thermal decomposition may result in the release of toxic and/or irritating fumes. |
| Hazardous Reactions | Reaction with strong reducing agents such as metal hydrides or alkali metal will generate hydrogen gas which could create an explosive hazard. Produces a mild exothermic reaction in contact with water. Reacts violently with elemental zirconium. |
| Hazardous Polymerization | Will not occur. |

11. TOXICOLOGICAL INFORMATION

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| Toxicology Information | LD50 (Oral, Rat): 4500-5000 mg/kg. LD50 (Dermal, Rabbit) >10000 mg/kg Eye irritation: Draize test in rabbits produced mild eye irritation effects. Fifty years of occupational exposure history reflects no indication of human eye injury from exposure to Borax decahydrate. Inhalation: Human epidemiological studies show no increase in pulmonary disease in occupational populations with chronic exposures to Boric Acid dust and Sodium Borate dust. |
| Inhalation | Inhalation of dusts may irritate the respiratory system. |
| Ingestion | Ingestion of this product may irritate the gastric tract causing nausea and vomiting. |
| Skin | Skin contact may cause mechanical irritation resulting in redness and itching. |
| Eye | May be irritating to eyes. The symptoms may include redness, itching and tearing. |
| Chronic Effects | Chronic exposure through ingestion or skin absorption may cause anorexia, weight loss, vomiting, mild diarrhea, skin rash, convulsions and anemia. |

12. ECOLOGICAL INFORMATION

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| Persistence / Degradability | Boron is naturally occurring and ubiquitous in the environment. Borax decahydrate decomposes in the environment to natural borate. |
| Mobility | Not available |
| Bioaccumulative Potential | Not available |
| Information on Ecological Effects | Although boron is an essential micronutrient healthy growth of plants, it can be harmful to boron-sensitive plants in higher quantities. Plants and trees can easily be exposed by root absorption to toxic levels of boron in the form of water-soluble borate leached into nearby soil or waters. Care should be taken to minimise the amount of borate product released to the environment. |
| Environment Protection | Do not allow product to enter drains, waterways or sewers. |
| Acute Toxicity - Fish | Dab, <i>Limanda limanda</i> 96hr LC50= 74 mg/L Rainbow trout, <i>Salmo gairdneri</i> (embryo-larval stage) 24d LC50= 88 mg/L; 32d LC50= 54 mg/L |

Goldfish, *Carassius auratus* (embryo-larval stage) 7d LC50= 65 mg/L; 3d LC50= 71 mg/L

**Acute Toxicity -
Daphnia**

24hr LC50= 242 mg/L

Acute Toxicity - Algae Green algae, *Scenedesmus subspicatus* 96hr EC10 = 24 mg/L

13. DISPOSAL CONSIDERATIONS

**Disposal
Considerations**

Product Disposal:

Product wastes are controlled wastes and should be disposed of in accordance with all applicable local and national regulations. This product can be disposed through a licensed commercial waste collection service. The product should be rendered non-hazardous before being sent to a licensed landfill facility.

Do not dispose directly into the sewerage system. Do not discharge into drains or watercourses or dispose where ground or surface waters may be affected.

Personal protective clothing and equipment as specified in Section 8 of this SDS must be worn during handling and disposal of this product. The ventilation requirements as specified in the same section must also be followed, and the precautions given in Section 7 of this SDS regarding handling must also be followed.

In New Zealand, the disposal agency or contractor must comply with the New Zealand Hazardous Substances (Disposal) Regulations 2001. Further details regarding disposal can be obtained on the ERMA New Zealand website under specific group standards.

Container Disposal:

The container or packaging must be cleaned and rendered incapable of holding any substance. It can then be disposed of in a manner consistent with that of the substance it contained. In this instance the packaging can be disposed through a commercial waste collection service.

Alternatively, the container or packaging can be recycled if the hazardous residues have been thoroughly cleaned or rendered non-hazardous.

In New Zealand, the packaging (that may or may not hold any residual substance) that is lawfully disposed of by householders or other consumers through a public or commercial waste collection service is a means of compliance with regulations.

14. TRANSPORT INFORMATION

Transport Information Australia:

Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)

New Zealand:

Not classified as Dangerous Goods for transport according to the NZS 5433:2007 Transport of Dangerous Goods on Land.

15. REGULATORY INFORMATION

**Regulatory
Information**

Australia:

Classified as Hazardous according to criteria of National Occupational Health & Safety Commission (NOHSC), Australia.

Classified as a Scheduled Poison according to the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

Poisons Schedule

S5

**National and or
International
Regulatory
Information**

New Zealand:

Classified as Hazardous according to the New Zealand Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001.

All components of this product are listed on the New Zealand Inventory of Chemicals (NZIoC) or exempted.

HSNO (CCID) Name: Sodium tetraborate, decahydrate

**HSNO Approval
Number** HSR002914
Hazard Category Toxic

16. Disclaimer

The information above is believed to be accurate and represents the best information currently available to us. However, the information is not a guarantee expressed or implied, with respect to such information, and we assume no liability resulting from its use. Anyone using the chemical described here should ensure that he or she has the appropriate training and has the expertise and any equipment required for safe handling. If clarification or further information is required, please contact ECP Ltd or refer to the official handler of dangerous goods within your own company. The user should also make their own investigations to determine the suitability of the product for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

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