

# Safety Data Sheet



## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Product Name:** **GRANUBOR**

**Recommended Use of the Chemical and Restrictions on Use** Fertiliser manufacturing.

**Supplier:** Ixom Operations Pty Ltd (Incorporated in Australia)  
**NZBN:** 9429041465226  
**Street Address:** 166 Totara Street  
Mt Maunganui South  
New Zealand

**Telephone Number:** +64 9 368 2700  
**Facsimile:** +64 9 368 2710  
**Emergency Telephone:** **0 800 734 607 (ALL HOURS)**

Please ensure you refer to the limitations of this Safety Data Sheet as set out in the "Other Information" section at the end of this Data Sheet.

## 2. HAZARDS IDENTIFICATION

Not classified as a Dangerous Good under NZS 5433:2012 Transport of Dangerous Goods on Land.

Classified as hazardous according to criteria in the Hazardous Substances (Minimum Degrees of Hazard) Notice 2017 and the Hazardous Substances (Classification) Notice 2017.

**SIGNAL WORD:** WARNING

**Subclasses:**

Subclass 6.1 Category E - Substances which are acutely toxic.

Subclass 6.4 Category A - Substances that are irritating to the eye.

Subclass 6.8 Category B - Substances that are suspected human reproductive or developmental toxicants.

Subclass 9.1 Category D - Substances that are slightly harmful to the aquatic environment or are otherwise designed for biocidal action.

Additives, Process Chemicals and Raw Materials (Subsidiary Hazard) Group Standard 2017  
Approval Number: HSR002503



**Hazard Statement(s):**

H303 May be harmful if swallowed.

H319 Causes serious eye irritation.

H361 Suspected of damaging fertility or the unborn child.

**Precautionary Statement(s):**

**Prevention:**

P102 Keep out of reach of children.

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 gloves/protective clothing/eye protection/face protection.

P281 Use personal protective equipment as required.

*Product Name:* GRANUBOR  
*Substance No:* 000000017752

*Issued:* 17/01/2020  
*Version:* 5

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## Response:

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

P305+P351+P338 IF IN EYES: 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.

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

## Storage:

P405 Store locked up.

## Disposal:

P501 In 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) Notice 2017. This may also include any method of disposal that must be avoided.

## 3. COMPOSITION AND INFORMATION ON INGREDIENTS

Components	CAS Number	Proportion	Hazard Codes
Sodium tetraborate pentahydrate	11130-12-4	>99%	H303 H319 H360

## 4. FIRST AID MEASURES

For advice, contact a Poisons Information Centre (e.g. phone Australia 131 126; New Zealand 0800 764 766) or a doctor.

### Inhalation:

Remove victim from area of exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.

### Skin Contact:

If skin contact occurs, remove contaminated clothing and wash skin with running water. If irritation occurs seek medical advice.

### Eye Contact:

If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre or a doctor, or for at least 15 minutes.

### Ingestion:

Rinse mouth with water. If swallowed, give a glass of water to drink. If vomiting occurs give further water. Seek medical advice.

### Indication of immediate medical attention and special treatment needed:

Supportive care only is required for adult ingestion of less than a few grams of the product. For ingestion of larger amounts, maintain fluid and electrolyte balance and maintain adequate kidney function. Gastric lavage is only recommended for heavily exposed, symptomatic patients in whom emesis has not emptied the stomach. Haemodialysis should be reserved for patients with massive acute absorption, especially for patients with compromised renal function. Boron analyses of urine or blood are only useful for verifying exposure and are not useful for evaluating severity of poisoning or as a guide in treatment.

## 5. FIRE FIGHTING MEASURES

### Suitable Extinguishing Media:

Not combustible, however, if material is involved in a fire use: Extinguishing media appropriate to surrounding fire conditions.

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## Specific hazards arising from the chemical:

Non-combustible material. Decomposes on heating emitting toxic fumes including those of oxides of sodium, oxides of boron.

## Special protective equipment and precautions for fire-fighters:

Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to products of decomposition.

## 6. ACCIDENTAL RELEASE MEASURES

### Emergency procedures/Environmental precautions:

Clear area of all unprotected personnel. May cause damage to trees or vegetation by root absorption. 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 normal environmental background level or meets local quality standards. If contamination of sewers or waterways has occurred advise local emergency services.

### Personal precautions/Protective equipment/Methods and materials for containment and cleaning up:

Wear protective equipment to prevent skin and eye contact and breathing in dust. Work up wind or increase ventilation. Cover with damp absorbent (inert material, sand or soil). Sweep or vacuum up, but avoid generating dust. Collect and seal in properly labelled containers or drums for disposal.

## 7. HANDLING AND STORAGE

**Precautions for safe handling:** Avoid skin and eye contact and breathing in dust. Avoid handling which leads to dust formation. Keep out of reach of children. When using do not eat, drink or smoke. Wash hands thoroughly after handling.

**Conditions for safe storage, including any incompatibilities:** Store in a cool, dry, well ventilated place. Protect from moisture. Store away from foodstuffs. Store away from incompatible materials described in Section 10. Keep containers closed when not in use - check regularly for spills.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Borates, tetra, sodium salts: Pentahydrate WES-TWA 1 mg/m<sup>3</sup>

As published by the New Zealand Workplace Health & Safety Authority.

WES - TWA (Workplace Exposure Standard - Time Weighted Average) - The average airborne concentration of a substance calculated over an eight-hour working day.

These Workplace Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These workplace exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

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## Appropriate engineering controls:

Ensure ventilation is adequate to maintain air concentrations below Workplace Exposure Standards. Keep containers closed when not in use.

If in the handling and application of this material, safe exposure levels could be exceeded, the use of engineering controls such as local exhaust ventilation must be considered and the results documented. If achieving safe exposure levels does not require engineering controls, then a detailed and documented risk assessment using the relevant Personal Protective Equipment (PPE) (refer to PPE section below) as a basis must be carried out to determine the minimum PPE requirements.

## Individual protection measures, such as Personal Protective Equipment (PPE):

The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

OVERALLS, SAFETY SHOES, CHEMICAL GOGGLES, GLOVES, DUST MASK.



Wear overalls, chemical goggles and impervious gloves. Avoid generating and inhaling dusts. If determined by a risk assessment an inhalation risk exists, wear a dust mask/respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b>	Crystalline Solid
<b>Colour:</b>	White
<b>Odour:</b>	Odourless
<b>Odour Threshold:</b>	Not applicable
<b>Molecular Formula:</b>	Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub> .5H <sub>2</sub> O
<b>Solubility:</b>	Soluble in water.
<b>Specific Gravity:</b>	1.81
<b>Relative Vapour Density (air=1):</b>	Not applicable
<b>Vapour Pressure (20 °C):</b>	Not applicable
<b>Flash Point (°C):</b>	Not applicable
<b>Flammability Limits (%):</b>	Not applicable
<b>Autoignition Temperature (°C):</b>	Not applicable
<b>Solubility in water (g/L):</b>	40.06 @20°C
<b>Melting Point/Range (°C):</b>	>300
<b>pH:</b>	9.23 (3.5% solution, 20°C)

## 10. STABILITY AND REACTIVITY

<b>Reactivity:</b>	None known.
<b>Chemical stability:</b>	Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

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<b>Possibility of hazardous reactions:</b>	Reacts with strong reducing agents releasing flammable hydrogen gas .
<b>Conditions to avoid:</b>	Avoid contact with foodstuffs. Avoid exposure to moisture. Avoid dust generation.
<b>Incompatible materials:</b>	Incompatible with and strong reducing agents (eg. alkali metals) .
<b>Hazardous decomposition products:</b>	Oxides of sodium. Oxides of boron.

## 11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

<b>Ingestion:</b>	No adverse effects expected, however, large amounts may cause nausea and vomiting.
<b>Eye contact:</b>	An eye irritant.
<b>Skin contact:</b>	Contact with skin may result in irritation. Symptoms of accidental over-exposure to high doses of inorganic borate salts have been associated with absorption through large areas of severely damaged skin. These may include delayed effects of skin redness and peeling.
<b>Inhalation:</b>	Breathing in dust may result in respiratory irritation.
<b>Acute toxicity:</b>	Oral LD50 (rat): 3200-3400 mg/kg. Dermal LD50 (rabbit): >2000 mg/kg. Inhalation LC50 (rat): >2.0 mg/L.
<b>Skin corrosion/irritation:</b>	Non-irritant (rabbit).
<b>Serious eye damage/irritation:</b>	Irritant (rabbit).
<b>Respiratory or skin sensitisation:</b>	Not a skin sensitiser (guinea pig).

**Chronic effects:** Animal feeding studies in rat, mouse and dog, at high doses, have demonstrated effects on fertility and testes. The doses administered were many times in excess of those to which humans would normally be exposed.

<b>Mutagenicity:</b>	Not classified.
<b>Carcinogenicity:</b>	Not classified.
<b>Reproductive toxicity:</b>	May damage fertility or the unborn child.
<b>Specific Target Organ Toxicity (STOT) - single exposure:</b>	Not classified.
<b>Specific Target Organ Toxicity (STOT) - repeated exposure:</b>	Not classified.
<b>Aspiration hazard:</b>	Not an aspiration hazard.

## 12. ECOLOGICAL INFORMATION

<b>Ecotoxicity</b>	Avoid contaminating waterways.
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<b>Persistence/degradability:</b>	Biodegradation is not an applicable endpoint since the product is an inorganic chemical.
<b>Bioaccumulative potential:</b>	Does not bioaccumulate.
<b>Mobility in soil:</b>	The product is soluble in water and is leachable through normal soil. Adsorption to soils or sediments is insignificant.

## 13. DISPOSAL CONSIDERATIONS

### Disposal methods:

Refer to local government authority for disposal recommendations. Dispose of contents/container in accordance with local/regional/national/international regulations.

## 14. TRANSPORT INFORMATION

### Road and Rail Transport

Not classified as a Dangerous Good under NZS 5433:2012 Transport of Dangerous Goods on Land.

### Marine Transport

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; NON-DANGEROUS GOODS.

### Air Transport

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; NON-DANGEROUS GOODS.

## 15. REGULATORY INFORMATION

### Classification:

Classified as hazardous according to criteria in the Hazardous Substances (Minimum Degrees of Hazard) Notice 2017 and the Hazardous Substances (Classification) Notice 2017.

### Subclasses:

Subclass 6.1 Category E - Substances which are acutely toxic.

Subclass 6.4 Category A - Substances that are irritating to the eye.

Subclass 6.8 Category B - Substances that are suspected human reproductive or developmental toxicants.

Subclass 9.1 Category D - Substances that are slightly harmful to the aquatic environment or are otherwise designed for biocidal action.

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Approval Number: HSR002503

### Hazard Statement(s):

H303 May be harmful if swallowed.

H319 Causes serious eye irritation.

H361 Suspected of damaging fertility or the unborn child.

## 16. OTHER INFORMATION

Supplier Safety Data Sheet; 10/ 2019.  
GRANUBOR is a registered trademark.

# Safety Data Sheet



This safety data sheet has been prepared by Ixom Operations Pty Ltd (Toxicology & SDS Services).

**Reason(s) for Issue:**

5 Yearly Revised Primary SDS

This SDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Ixom Operations Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.

If clarification or further information is needed, the user should contact their Ixom representative or Ixom Operations Pty Ltd at the contact details on page 1.

Ixom Operations Pty Ltd's responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.