

Gro-B

HAZARDOUS, NON-DANGEROUS GOODS

1. MATERIAL AND SUPPLY COMPANY IDENTIFICATION

Product name:	Gro-B
Recommended use:	Correction of boron deficiencies in a wide range of crops.
Supplier:	Grochem (AgriNova New Zealand Limited)
Company No.:	9429036821501
Street Address:	15 Sunlight Grove Porirua New Zealand
Telephone:	+64 4 237 0905
Email:	grochem@grochem.com
Emergency telephone:	New Zealand 0800 CHEMCALL - 24 hours (0800 243 6225) Australia 1800 127 406 Other locations +64 4 917 9888 or The National Poisons Centre 0800 POISON (0800 764 766)
Issue date:	23 September 2020

2. HAZARDS IDENTIFICATION

This material is hazardous according to criteria of EPA New Zealand.

EPA Group Standard: HSR002571 - Fertilisers (Subsidiary Hazard) Group Standard.



Signal Word: Warning

Hazard Classifications: 6.1E - Substances that are acutely toxic - Oral.
6.3B - Substances that are mildly irritating to the skin.
6.4A - Substances that are irritating to the eye.
6.8B - Substances that are suspected human reproductive or developmental toxicants.
9.1D - Substances that are slightly harmful to the aquatic environment or are otherwise designed for biocidal.

Hazard Statements: H303 - May be harmful if swallowed.
H316 - Causes mild skin irritation.
H319 - Causes serious eye irritation.
H361 - Suspected of damaging fertility or the unborn child.
H413 - May cause long lasting harmful effects to aquatic life.

Prevention Precautionary Statements: P102 - Keep out of reach of children.
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, face and all exposed skin thoroughly after handling.
P273 - Avoid release to the environment.
P281 - Use personal protective equipment as required.

Response Precautionary Statements:	P101 - If medical advice is needed, have product container or label at hand. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308+P313 - IF exposed or concerned: Get medical advice/attention. P312 - Call a POISON CENTRE or doctor/physician if you feel unwell. P332+P313 - If skin irritation occurs: Get medical advice/attention. P337+P313 - If eye irritation persists: Get medical advice/attention.
Storage Precautionary Statement:	P405 - Store locked up.
Disposal Precautionary Statement:	P501 - Dispose of contents/container in accordance with local, regional, national and international regulations.
Dangerous Good Classification:	Not classified as Dangerous Goods by the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail and the New Zealand NZS5433: Transport of Dangerous Goods on Land.

3. COMPOSITION INFORMATION

CHEMICAL ENTITY	CAS NO	PROPORTION
Boric acid (H3B03)	10043-35-3	99 % (w/w)
Ingredients determined to be Non-Hazardous		Balance 100%

4. FIRST AID MEASURES

If poisoning occurs, contact a doctor or Poisons Information Centre (Phone Australia 131 126, New Zealand 0800 764 766).

Inhalation:	Remove victim from 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 or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. If swelling, redness, blistering or irritation occurs seek medical assistance.
Eye contact:	If in eyes, hold eyelids apart and flush the eyes continuously with running water. Continue flushing until advised to stop by the Poisons Information Centre or a Doctor; or for at least 15 minutes and transport to Doctor or Hospital.
Ingestion:	Rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water to drink. Never give anything by the mouth to an unconscious patient. If vomiting occurs give further water. Seek medical advice.

PPE for First Aiders: Wear overalls, gloves, safety glasses, respirator. Use with adequate ventilation. If inhalation risk exists wear organic vapour/particulate respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716. Available information suggests that gloves made from natural rubber should be suitable for intermittent contact. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

Notes to physician: Treat symptomatically.

5. FIRE FIGHTING MEASURES

Hazchem Code:	2X
Suitable extinguishing media:	If material is involved in a fire use water fog (or if unavailable fine water spray), alcohol resistant foam, standard foam, dry agent (carbon dioxide, dry chemical powder).
Specific hazards:	Non-combustible material.
Firefighting further advice:	Not applicable.

6. ACCIDENTAL RELEASE MEASURES

Small Spills: Wear protective equipment to prevent skin and eye contamination. Avoid inhalation of vapours or dust. Wipe up with absorbent (clean rag or paper towels). Collect and seal in properly labelled containers or drums for disposal.

Large Spills: **Contain spillage.** Prevent spillage from entering waterways and drains. Clear area of all unprotected personnel. Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contamination and the inhalation of 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. If contamination of crops, sewers or waterways has occurred advise local emergency services.

Dangerous Goods - Initial Emergency Response Guide No:

Not applicable

7. HANDLING AND STORAGE

Handling: Avoid eye contact and skin contact. Avoid inhalation of dust.

Storage: Store in a cool, dry, well-ventilated place and out of direct sunlight. Store away from foodstuffs. Store away from incompatible materials described in Section 10. Store away from sources of heat and/or ignition. Store locked up. Keep container standing upright. Keep containers closed when not in use - check regularly for spills.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

National occupational exposure limits: No value assigned for this specific material by WorkSafe New Zealand.

Biological Limit Values: As per the WorkSafe New Zealand the ingredients in this material do not have a Biological Limit Allocated.

Engineering Measures: Natural ventilation should be adequate under normal use conditions.

Personal Protection Equipment: OVERALLS, GLOVES, SAFETY GLASSES, RESPIRATOR.

Personal protective equipment (PPE) must be suitable for the nature of the work and any hazard associated with the work as identified by the risk assessment conducted.

Wear overalls, gloves, safety glasses, respirator. Use with adequate ventilation. If inhalation risk exists wear organic vapour/particulate respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716. Available information suggests that gloves made from natural rubber should be suitable for intermittent contact. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

Hygiene measures: Keep away from food, drink and animal feeding stuffs. When using do not eat, drink or smoke. Wash hands prior to eating, drinking or smoking. Avoid contact with clothing. Avoid eye contact and skin contact. Avoid inhalation of dust. Ensure that eyewash stations and safety showers are close to the workstation location.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form:	Crystalline Powder	Solubility:	55.5g/L in water @ 20°C	Freezing point	171°C
Colour:	Off white	pH:	5.1(1% soln.)		

10. STABILITY AND REACTIVITY

Chemical stability: This material is thermally stable when stored and used as directed. When heated, the product loses water, forming metaboric acid (HBO₂) at 100°C, then pyroboric acid (H₂B₄O₇) at 150°C and boric anhydride (B₂O₃) at higher temperatures.

Conditions to avoid: Elevated temperatures and sources of ignition.

Incompatible materials: Oxidising agents, reducing agents, base metals, potassium, aluminium, acetic anhydride, alkalis, carbonates and hydroxides. Avoid exposure to moisture.

Hazardous decomposition products: Oxides of carbon and nitrogen, smoke and other toxic fumes.

Hazardous reactions: No known hazardous reactions.

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:

Acute Effects

Inhalation:	Material may be an irritant to mucous membranes and respiratory tract.
Skin contact:	Contact with skin may result in irritation.
Ingestion:	Swallowing can result in nausea, vomiting and irritation of the gastrointestinal tract.
Eye contact:	An eye irritant. Exposure to the dust may cause discomfort due to particulate nature. May cause physical irritation to the eyes.

Acute toxicity

Inhalation:	This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): LC50 > 5.0 mg/L
Skin contact:	This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >5,000 mg/Kg bw
Ingestion:	This material has been classified as a 6.1E - Substances that are acutely toxic. Acute toxicity estimate (based on ingredients): 2,000 - 5,000 mg/Kg bw
Corrosion/Irritancy:	Eye: this material has been classified as a 6.4A - Substances that are irritating to the eye. Skin: this material has been classified as a 6.3B - Substances that are mildly irritating to the skin.
Sensitisation:	Inhalation: this material has been classified as not a respiratory sensitiser. Skin: this material has been classified as not a skin sensitiser.
Aspiration hazard:	This material has been classified as non-hazardous.
Specific target organ toxicity (single exposure):	This material has been classified as non-hazardous.

Chronic Toxicity

Mutagenicity:	This material has been classified as non-hazardous.
Carcinogenicity:	This material has been classified as non-hazardous.
Reproductive toxicity (including via lactation):	This material has been classified as a 6.8B - Substances that are suspected human reproductive or developmental toxicants.
Specific target organ toxicity (repeat exposure):	This material has been classified as non-hazardous.

12. ECOLOGICAL INFORMATION

Avoid contaminating waterways.

Acute aquatic hazard:	This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >100 mg/L
Long-term aquatic hazard:	This material has been classified as a 9.1D - Substances that are slightly harmful to the aquatic environment or are otherwise designed for biocidal action. Non-rapidly or rapidly degradable substance for which there are adequate chronic toxicity data available OR in the absence of chronic toxicity data, Acute toxicity estimate (based on ingredients): 10 - 100 mg/L, where the substance is not rapidly degradable and/or BCF \geq 500 and/or log Kow \geq 4.
Ecotoxicity in the soil environment:	This material has been classified as non-hazardous.
Ecotoxicity to terrestrial vertebrates:	This material has been classified as non-hazardous.
Ecotoxicity to terrestrial invertebrates:	This material has been classified as non-hazardous.
Ecotoxicity:	No information available.
Persistence and degradability:	No information available.
Bioaccumulative potential:	No information available.
Mobility:	No information available.

13. DISPOSAL CONSIDERATIONS

Persons conducting disposal, recycling or reclamation activities should ensure that appropriate personal protection equipment is used, see "Section 8. Exposure Controls and Personal Protection" of this SDS.

If possible, material and its container should be recycled. If material or container cannot be recycled, dispose in accordance with local, regional, national and international Regulations.

14. TRANSPORT INFORMATION

ROAD AND RAIL TRANSPORT:	Not classified as Dangerous Goods by the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail and the New Zealand NZS5433: 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.
AIR TRANSPORT:	Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

15. REGULATORY INFORMATION

All components of this product are listed on or exempt from the New Zealand Inventory of Chemical (NZIoC).

EPA Group Standard:	HSR002571 - Fertilisers (Subsidiary Hazard) Group Standard
Approved handler:	No
Location test certificate:	No
Fire extinguishers:	No
Signage:	Yes (≥ 10000kg)
Emergency response:	Yes (≥ 10000kg)
Hazardous atmosphere zone:	No
Max. amount permitted on a passenger service vehicle:	10kg

16. OTHER INFORMATION

Reason for issue: 5 yearly revision

This information was prepared in good faith from the best information available at the time of issue. It is based on the present level of research and to this extent we believe it is accurate. However, no guarantee of accuracy is made or implied and since conditions of use are beyond our control, all information relevant to usage is offered without warranty. The manufacturer will not be held responsible for any unauthorised use of this information or for any modified or altered versions.

If you are an employer it is your duty to tell your employees, and any others that may be affected, of any hazards described in this sheet and of any precautions that should be taken.

Safety Data Sheets are updated frequently. Please ensure you have a current copy.

This SDS summarises our best knowledge of the health and safety hazard information available for this product and how to safely handle and use it. Since the use of this information and the conditions of the use of this product are not under the control of GroChem, it is the user's responsibility to determine conditions of safe use of the product.