

Gro-B

Section 1: Identification of the Substance or Mixture and of the Supplier

Product name:	Gro-B
Recommended use:	Used for the correction of boron deficiencies in a wide range of crops.
Company details:	Grochem (AgriNova New Zealand Limited) 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)
Date of preparation:	07 October 2015

Section 2: Hazards Identification

Hazard classification:	Not a Dangerous Good for transport
Hazardous Substances (HSNO)	6.1E (Oral) (Warning: May be harmful if swallowed.) 6.3B (Warning: Causes mild skin irritation.) 6.4A (Warning: Causes serious eye irritation.) 6.8B (Warning: Suspected of damaging fertility or the unborn child.) 9.1D (May cause long lasting harmful effects to aquatic life.)



Section 3: Composition/Information on Ingredients

Classification & type:	CAS No.	Proportion (%w)
Material Boric Acid	10043-35-3	>99%

Section 4: First Aid Measures

Symptoms of exposure	No adverse health effects expected if the product is handled in accordance with this SDS and the product label. Symptoms that may arise if the product is mishandled are:
If Swallowed:	May be harmful. Suspected of damaging fertility or the unborn child
If in Eye:	Causes serious eye irritation
If on Skin:	Causes mild skin irritation
If Inhaled:	May cause respiratory tract irritation.
First aid actions	If exposed, concerned or if symptoms persist: Get medical attention/advice. If medical advice is needed, have product container or label at hand.
If Swallowed:	DO NOT induce vomiting. Call a POISON CENTRE or Doctor if you feel unwell
If in Eye:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical attention.
If on Skin:	Wash with plenty of soap and water. If skin irritation occurs, get medical advice.
If Inhaled:	Move patient to fresh air and sit in a position comfortable for breathing.
Workplace facilities	Eyewash and general hygiene facilities should be available.
Notes for medical personnel	Treat symptomatically .

Section 5: Fire Fighting Measures

Type of hazard:	Releases toxic gases if heated to decomposition . Material is not flammable.
HAZCHEM Code	2X
Combustion products:	Non-flammable, combustible or explosive. The product itself is a flame retardant.
Extinguishing media & methods	Use media appropriate to flammable material involved.
Recommended protective clothing	Fire-fighters to wear self-contained breathing apparatus.

Section 6: Accidental Release Measures

Personal protection:	See Section 8.3 for appropriate PPE.
Containment and clean up:	Contain spillage. Prevent spillage from entering waterways and drains. Avoid spreading spill material. Dispose of collected waste at an approved disposal facility.
Special requirements:	See Section 13 for instructions for the disposal of waste/contaminated material.

Section 7: Handling and Storage

Subsection 1:	Handling
	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear appropriate PPE as detailed in Section 8.3.
Subsection 2:	Storage
Site requirements	Store locked up away from heat in a well ventilated area. Store in original container until used.

Section 8: Exposure Controls/Personal Protection

Subsection 1:	Workplace Exposure Guidelines (may also be considered in section 2)
Workplace exposure standards	No exposure standards have been set for this substance.
Subsection 2:	Engineering Controls
Exposure control measures	Avoid generation of product dust. Use breathing apparatus when spraying.
Subsection 3:	Personal Protective Equipment (PPE)
Detail specifications for equipment	Wear eye protection. Wear breathing apparatus when spraying. Wear protective gloves. Wear overalls
General hygiene	Wash thoroughly after handling. Leave contaminated clothing at work. Wash clothing before reuse.

Section 9: Physical and Chemical Properties

Appearance	Off white powder	Boiling point (degC)	Decomposes
Odour	Odourless	Freezing point (degC)	171
Specific gravity (kg/L)	1.5	Flashpoint (degC)	Not flammable
pH	5.1 (1% soln)	Solubility	55.5g/L @ 20°C

Section 10: Stability and Reactivity

Stability of substance:	Stable under normal conditions. When heated, the product loses water, forming metaboric acid (HBO ₂) at 100°C; then pyroboric acid (H ₂ B ₄ O ₇) at 150°C, and boric anhydride (B ₂ O ₃) at higher temperatures
Conditions to avoid:	Avoid high temperatures.
Material to avoid:	Incompatible with strong reducing agents, base metals, potassium, acetic anhydride, alkalis, carbonates, hydroxides, and sources of ignition. Avoid exposure to moisture. Avoid contact with aluminium, copper or oxidising agents.
Hazardous decomposition Products:	Various Boron products.
Hazardous polymerization:	Will not occur.

Section 11: Toxicological Information

Data and Interpretation:	Oral LD50 Rat : 2660mg/kg See Section 2 for general hazard information.
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Section 12: Ecological Information

Potential environmental interactions:	
Environmental risk phrases	Acts as a biocide. May cause long lasting harmful effects to aquatic life. Avoid contamination of waterways.

Section 13: Disposal Considerations

Product disposal:	Dispose of by using in accordance with label instructions. Alternatively process at an approved facility.
Container disposal:	Triple rinse container into spray tank. Recycle if possible (eg Agrecovery), otherwise puncture, crush and bury at an approved landfill.

Section 14: Transport Information

UN number:	Not assigned
DG Class and Subsidiary Group:	N/A
Proper shipping name:	N/A
Packing group:	N/A
HAZCHEM code:	2X
Special precautions:	Do not carry more than 3 kg on a passenger service vehicle.

Section 15: Regulatory Information

Regulatory status Approved Pursuant to the HSNO Act 1996, Number HSR002995.
See www.epa.govt.nz for approval conditions.

HSNO Controls:

SDS must be available for:	0.1kg
Signage:	10,000kg
Emergency plan:	10,000kg

Section 16: Other Information

Revision due:	07 October 2020
This revision:	New Format and review
Additional Information:	Directions for use are found on the product label.

Glossary:

ACVM	Agricultural Compounds and Veterinary Medicines (in relation to Group or Act 1997)
CAS	Chemical Abstract Services Number, used to uniquely identify chemical compounds
HSNO	Hazardous Substances and New Organisms (legislation 1996)
LC50	Lethal Concentration fatal to 50% of test animals/organisms
LD50	Lethal Dose fatal to 50% of test animals/organisms
PPE	Personal Protective Equipment

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.