

TRACE-IT MICRO

1.0 IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product identifier

Product name TRACE-IT MICRO

1.2 Uses and advised against

Recommended use CORRECTION OF TRACE ELEMENT DEFICIENCIES IN CEREAL CROPS

1.3 Details of the supplier of the product

Supplier Grochem (AgriNova New Zealand Limited)
Company no. 9429036821501
Address 15 Sunlight Grove, Porirua, New Zealand
Telephone +64 4 237 0905
Facsimile +64 4 237 0906
Email grochem@grochem.com
Website www.grochem.com

1.4 Emergency telephone number(s)

Emergency 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)

1.5 Date of preparation

Date of preparation 12 September 2019

2.0 HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

THIS MATERIAL IS HAZARDOUS ACCORDING TO CRITERIA OF EPA NEW ZEALAND.

HSNO approval code HSR002632 - OXIDISING [5.1.1], CORROSIVE SUBSTANCES GROUP STANDARD

Dangerous goods classification 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".

Dangerous goods class 5.1

Subrisk 1: 8

2.2 GHS label elements

Signal word DANGER



Hazard classification(s)	5.1.1C	Oxidising substances that are liquids or solids
	6.1E	Substances that are acutely toxic - Oral
	8.2C	Substances that are corrosive to dermal tissue
	8.3A	Substances that are corrosive to ocular tissue
	6.5B	Substances that are contact sensitisers
	6.9B (Single exposure)	Substances that are harmful to human target organs or systems
	9.1A	Substances that are very ecotoxic in the aquatic environment (H400)
Hazard statement(s)	H272	May intensify fire; oxidizer.
	H303	May be harmful if swallowed.
	H314	Causes severe skin burns and eye damage.
	H317	May cause an allergic skin reaction.
	H371	May cause damage to organs.
	H400	Very toxic to aquatic life.
Prevention precautionary statement(s)	P102	Keep out of reach of children.
	P103	Read label before use.
	P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
	P220	Keep/store away from clothing/combustible materials.
	P221	Take any precaution to avoid mixing with combustibles.
	P260	Do not breathe dust, fume, gas, mist, vapours or spray.
	P261	Avoid breathing dust, fume, gas, mist, vapours or spray.
	P264	Wash hands, face and all exposed skin thoroughly after handling.
	P270	Do not eat, drink or smoke when using this product.
	P272	Contaminated work clothing should not be allowed out of the workplace.
	P273	Avoid release to the environment.
	P280	Wear protective clothing, gloves, eye/face protection and suitable respirator.
Response precautionary statement(s)	P101	If medical advice is needed, have product container or label at hand.
	P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
	P302+P352	IF ON SKIN: Wash with plenty of soap and water.
	P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
	P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
	P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P309+P311	IF exposed or if you feel unwell: Call a POISON CENTRE or doctor/physician.
	P310	Immediately call a POISON CENTRE or doctor/physician.
	P312	Call a POISON CENTRE or doctor/physician if you feel unwell.
	P321	Specific treatment (see product label).
	P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
	P363	Wash contaminated clothing before reuse.
	P370+P378	In case of fire: Use (insert appropriate media) for extinction.
P391	Collect spillage.	
Storage precautionary statement(s)	P405	Store locked up.
Disposal precautionary statement(s)	P501	Dispose of contents/container in accordance with local, regional, national and international regulations.

3.0 COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances/mixtures

Chemical entity	CAS number	Proportion
Nitric acid, manganese (2+) salt	10377-66-9	20 -30 % (w/w)
Copper sulphate pentahydrate	7758-99-8	10 -15 % (w/w)
Sulfuric acid, zinc salt (1:1), heptahydrate	7446-20-0	10 -15 % (w/w)
Ingredients determined to be non-hazardous		to 100%

4.0 FIRST AID MEASURES

4.1 Description of 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	Effects may be delayed. 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. For gross contamination, immediately drench with water and remove clothing. Continue to flush skin and hair with plenty of water (and soap if material is insoluble). For skin burns, cover with a clean, dry dressing until medical help is available. If blistering occurs, do NOT break blisters. If swelling, redness, blistering, or irritation occurs seek medical assistance.
Eye contact	Immediately irrigate with copious quantities of water for 15 minutes. Eyelids to be held open. Remove clothing if contaminated and wash skin. Urgently seek medical assistance. Transport to hospital or medical centre.
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 rubber boots, overalls, gloves, apron, safety glasses. 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. Effects may be delayed. Can cause corneal burns.

5.0 FIRE FIGHTING MEASURES

5.1 Hazchem code

2W

5.2 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).

5.3 Specific hazards

May intensify fire; oxidiser.

5.4 Firefighting further advice

On burning or decomposing may emit toxic fumes. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion or decomposition.

6.0 ACCIDENTAL RELEASE MEASURES

6.1 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.

6.2 Large spills

If safe to do so, shut off all possible sources of ignition. 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 vapours. Work up wind or increase ventilation. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Use a spark-free shovel. Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.

6.3 Dangerous goods - Initial emergency response guide no.

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7.0 HANDLING AND STORAGE**7.1 Handling****Handling practices**

Wear appropriate PPE as detailed in Section 8. Avoid eye contact and skin contact. Avoid inhalation of vapour, mist or aerosols.

7.2 Storage**Site requirements**

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 leaks. Packaging must be child resistant in quantities of less than 2.5L.

This material is classified as a Division 5.1 Oxidising Substance, Class 8 Corrosive as per the criteria of the "New Zealand NZS5433: Transport of Dangerous Goods on Land" and/or the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and must be stored in accordance with the relevant regulations.

8.0 EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1 National occupational exposure limits****Workplace exposure guidelines**

Manganese Nitrate (10377-66-9)
 OSHA: 1 mg/m³ TWA (fume)
 OSHA: 5 mg/m³ Ceiling (fume) (related to Manganese)

8.2 Biological limit values**Biological limit values**

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

8.3 Engineering controls**Exposure control methods**

Natural ventilation should be adequate under normal use conditions.

8.4 Personal Protective Equipment (PPE)**Detail specifications for equipment**

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 rubber boots, overalls, gloves, apron, safety glasses. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

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 vapour, mist or aerosols. Ensure that eyewash stations and safety showers are close to the workstation location.

**9.0 PHYSICAL AND CHEMICAL PROPERTIES****9.1 Information on basic physical and chemical properties**

Form	Clear liquid
Colour	Blue
Odour	Odourless
Solubility	Soluble in water
Specific gravity	1.3 - 1.4
Boiling point/range (°C)	>100°C
pH	Typically ~ 2.5

10.0 STABILITY AND REACTIVITY

10.1 Chemical stability

This material is thermally stable when stored and used as directed.

10.2 Conditions to avoid

Elevated temperatures and sources of ignition.

10.3 Incompatible materials

Flammable and combustible materials, strong reducing agents, finely powdered metals and strong acids/alkalis.

10.4 Hazardous decomposition products

Oxides of carbon and nitrogen, smoke and other toxic fumes.

10.5 Hazardous reactions

No known hazardous reactions.

11.0 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:

11.1 Acute effects

Inhalation	Material may be an irritant to mucous membranes and respiratory tract.
Skin contact	Contact with skin will result in severe irritation. Corrosive to skin - may cause skin burns. A skin sensitiser. Repeated or prolonged skin contact may lead to allergic contact dermatitis.
Ingestion	Swallowing can result in nausea, vomiting, diarrhoea, abdominal pain and chemical burns to the gastrointestinal tract.
Eye contact	A severe eye irritant. Corrosive to eyes: contact can cause corneal burns. Contamination of eyes can result in permanent injury.

11.2 Acute toxicity

Inhalation	This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): LC50 > 20.0 mg/L for vapours or LC50 > 5.0 mg/L for dust and mist or LC50 > 5,000 ppm gas
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 8.3A - Substances that are corrosive to ocular tissue. Skin: this material has been classified as a 8.2C - Substances that are corrosive to dermal tissue.
Sensitisation	Inhalation: this material has been classified as not a respiratory sensitiser. Skin: this material has been classified 6.5B - Substances that are contact sensitisers.
Aspiration hazard	This material has been classified as non-hazardous.
Specific target organ toxicity (single exposure)	This material has been classified as a 6.9B - Substances that are harmful to human target organs or systems.

11.3 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 non-hazardous.
Specific target organ toxicity (repeat exposure)	This material has been classified as non-hazardous.

Chronic overexposure to manganese compounds may result in CNS effects such as weakness, sleepiness, emotional instability and spastic gait. These effects can be permanent. Can also cause 'manganism'; characterised by fatigue, irritability, headaches and asthenia. Symptoms are reversible when exposure stops. Some permanent brain damage can occur, resembling Parkinson's disease. High or repeated exposure may damage the kidneys or liver.

12.0 ECOLOGICAL INFORMATION

Avoid contaminating waterways.

12.1 Acute aquatic hazard

9.1A - Substances that are very ecotoxic in the aquatic environment. Acute toxicity estimate (based on ingredients): <1 mg/L

12.2 Long-term aquatic hazard

This material has been classified as non-hazardous. 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): >100 mg/L, where the substance is not rapidly degradable and/or BCF < 500 and/or log Kow < 4.

12.3 Ecotoxicity in the soil environment

This material has been classified as non-hazardous.

12.4 Ecotoxicity to terrestrial vertebrates

This material has been classified as non-hazardous.

12.5 Ecotoxicity to terrestrial invertebrates

This material has been classified as non-hazardous.

12.6 Ecotoxicity

No information available.

12.7 Persistence and degradability

No information available.

12.8 Bioaccumulative potential

No information available.

12.9 Mobility

No information available.

13.0 DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Waste disposal

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.

14.0 TRANSPORT INFORMATION



	14.1 Road and rail transport	14.2 Marine transport	14.3 Air transport
Classification	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".	lassified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea. This material is classified as a Marine Pollutant (P) according to the International Maritime Dangerous Goods Code.	Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.
UN number	3098	3098	3098
Dangerous goods class	5.1	5.1	5.1
Subrisk 1	8	8	8
Packing group	III	III	III
Hazchem code	2W	-	-
Emergency reponse guide number	31	-	-
Proper shipping name	Oxidizing liquid, corrosive, N.O.S.	Oxidizing liquid, corrosive, N.O.S.	Oxidizing liquid, corrosive, N.O.S.
Segregation dangerous goods	Not to be loaded with explosives (Class 1), flammable gases (Class 2.1), toxic gases (Class 2.3), flammable liquids (Class 3), flammable solids (Class 4.1), spontaneously combustible substances (Class 4.2), dangerous when wet substances (Class 4.3), organic peroxides (Class 5.2), radioactive substances (Class 7), corrosive substances (Class 8), fire risk substances or combustible liquids. Also note that fire risk substances including dangerous goods of Class 6 or Class 9 which are fire risk substances are incompatible with dangerous goods of Class 1, Class 5.1 and Class 5.2. Exemptions may apply.	-	-
Special precautions	Do not carry more than 1 kg per package on a passenger service vehicle.	-	-

15.0 REGULATORY INFORMATION

15.1 Regulatory status

This material is not subject to the following international agreements:

Montreal Protocol (Ozone depleting substances)

The Stockholm Convention (Persistent Organic Pollutants)

The Rotterdam Convention (Prior Informed Consent)

Basel Convention (Hazardous Waste)

International Convention for the Prevention of Pollution from Ships (MARPOL)

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

EPA Group Standard: **HSR002632** - Oxidising [5.1.1], Corrosive Substances Group Standard

15.2 Trigger quantities

Certified handler No

Location test certificate Yes (≥ 100L)

Fire extinguishers (x2) Yes (≥ 500L)

Signage	Yes (≥ 100L)
Emergency response	Yes (≥ 100L)
Bundling	Yes (≥ 100L)
Hazardous atmosphere zone	No

16.0 OTHER INFORMATION

Revision due 12 September 2024

Glossary

CAS	Chemical Abstract Services Number, used to uniquely identify chemical compounds
CNS	Central Nervous System
HSNO	Hazardous Substances and New Organisms (legislation 1996)
LD50	Lethal Dose to kill 50% of test animals/organisms
OSHA	Occupational Safety and Health Administration
PPE	Personal Protective Equipment
TWA	Time Weighted Average

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.