

SAFETY DATA SHEET

Section 1.	Identification of the material and the supplier
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Product: WUXAL[®] Manganese
 Product No: 22279
 Product Use: Fertiliser, preparation for plant nutrition.
 Restriction of Use: Refer to Section 15

New Zealand Supplier: Horticulture Ltd
 Address: 10 Firth Street
 Drury, 2113

Telephone: +64 9 294 8453
 Fax Number: +64 9 294 7272

Emergency Telephone: 0800 764 766 (National Poison Centre)

Date of SDS Preparation: 9 July 2024 v3

Section 2.	Hazards Identification
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This substance is hazardous according to the EPA Hazardous Substances (Classification) Notice 2020

EPA Approval Code: Fertilisers (subsidiary) - HSR002571

Pictograms



Signal Word: **DANGER**

GHS Classification and Category	Hazard Code	Hazard Statement
Specific target organ toxicity – repeated exposure Cat. 1	H372	Causes damage to organs through prolonged or repeated exposure.
Hazardous to the aquatic environment chronic Cat. 3	H412	Harmful to aquatic life with long lasting effects.

Prevention Code Prevention Statement

P103	Read carefully and follow all instructions.
P260	Do not breathe dust or fumes.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.

Response Code Response Statement

P305 + P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
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P337 + P313	If eye irritation persists: Get medical advice/attention.
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Storage Code Storage Statement

None allocated	
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Disposal Code Disposal Statement

P501	Triple rinse container. Cleaned packaging maybe offered for recycling or landfill in accordance with local regulations. Dispose of unwanted product as a hazardous material according to Local Regulations.
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Section 3. Composition / Information on Ingredients

Ingredients	Wt%	CAS NUMBER.
Manganese (II) sulphate monohydrate	5-10	10034-96-5

Section 4. First Aid Measures

Routes of Exposure:

If in Eyes	Rinse cautiously with water for several minutes. If eye irritation persists: Get medical advice.
If on Skin	Wash with plenty of soap and water. If skin irritation occurs: get medical advice/attention.
If Swallowed	Immediately rinse the mouth. DO NOT induce vomiting. Get medical assistance if you feel unwell.
If Inhaled	Remove person to fresh air. Remove contaminated clothing and loosen remaining clothing. Allow person to assume most comfortable position and keep warm. Keep at rest until fully recovered. Get medical advice if breathing becomes difficult.

Most important symptoms and effects, both acute and delayed

Symptoms:

Ingestion:	Not applicable
Inhalation:	Not applicable
Skin:	Not applicable
Eye:	Not applicable
Chronic:	Causes damage to organs through prolonged or repeated exposure.

Section 5. Fire Fighting Measures

Hazard Type	Non Flammable
Hazards from decomposition products	The material itself is harmless and hardly inflammable. Ambient fire may liberate hazardous vapours. If larger quantities of the product are on fire, the formation of nitrous gases and ammonia is possible.
Suitable Extinguishing media	Water, carbon dioxide, dry extinguishing media.
Precautions for firefighters and special protective clothing	Do not stay in dangerous zone without suitable protecting clothes and self-contained breathing apparatus. Contain escaping vapours with water. Prevent fire-fighting water from entering surface water or groundwater.
HAZCHEM CODE	None allocated

Section 6. Accidental Release Measures

Avoid substance contact, dont inhale vapours/aerosols. Wear closed working clothes, protecting glasses, hand protection, and in case of vapours respiratory protection. Remove soiled clothes.

Take up with absorption media. Disposal of contaminated material as waste according to section 13.

Ensure that the product does not reach the ground-water, water bodies or the drainage system.

Section 7. Handling and Storage

Handling

- Read label before use.
- Do not breathe dust or fumes.
- Wash hands thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Avoid release to the environment.

Storage

- Protect the product from impurity and drying up.
- Temperature in stockrooms not below +0°C and above +30°C.
- Keep containers tightly closed.
- Do not store in metal containers (corrosion risk)
- Do not store together with food and luxury food, beverage and animal feed.

Section 8 Exposure Controls / Personal Protection

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance	TWA		STEL	
	ppm	mg/m ³	ppm	mg/m ³

No ingredient has exposure limits

Workplace Exposure Standard – Time Weighted Average (WES-TWA). The time-weighted average exposure standard designed to protect the worker from the effects of long-term exposure. Workplace Exposure Standard – Short-Term Exposure Limit (WESSTEL). The 15-minute average exposure standard. Applies to any 15- Minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWA; both the short-term and time-weighted average exposures apply. Workplace Exposure Standards and Biological Exposure Indices NOV 2023 13TH EDITION.

Engineering Controls

Ensure adequate ventilation to minimize exposure

Personal Protection Equipment



Eyes	Safety goggles with side shields.
Hands	Chemical resistance rubber or plastic gloves.
Skin	Closed working clothes.
Respiratory	Required when vapours/aerosols are generated.
General	Immediately change contaminated clothing. Apply skin-protective barrier cream. Wash hands and face after working with substance. Do not eat and drink at work.

Section 9 Physical and Chemical Properties

Appearance	Aqueous crystal suspension
Colour	Green Brown
Odour	Product specific
Odour Threshold	Not applicable
pH (original state)	Approx 6.5
pH at 10g/l H₂O and 20°C:	Approx 7.8
Change in physical state	> 100°C evaporation of water
Boiling Point	Not applicable
Melting Point	Not applicable
Freezing Point	Not applicable
Flash Point	Not applicable
Flammability	Not applicable
Upper and Lower Explosive Limits	Not applicable
Explosive hazards	Not applicable
Vapour Pressure	Not applicable
Vapour Density	Not applicable
Density @ 20°C	approx. 1.45 g/cm ³
Water Solubility @ 20°C	Approx 200 g/l
Partition Coefficient:	Not applicable
Self-ignition	The product is not spontaneously flammable.
Decomposition Temperature	Not applicable
Kinematic Viscosity	Not applicable
Particle Characteristics	Not applicable

Section 10. Stability and Reactivity

Stability of Substance	This product is stable under normal conditions.
Possibility of hazardous reactions	Reacts with alkalis setting ammonia free.
Conditions to Avoid	Keep the product from drying up. Temperatures above +30°C.
Incompatible Materials	Alkalis.
Hazardous Decomposition Products	If larger quantities of the product are on fire, the formation of nitrous gases and ammonia is possible.

Section 11 Toxicological Information**Acute Effects:**

Swallowed	Not applicable. LD50 (oral): =>5000 mg/kg.
Dermal	Not applicable.
Inhalation	Not applicable.
Eye	Not applicable.
Skin	Not applicable.

Chronic Effects:

Carcinogenicity	Not applicable.
Reproductive Toxicity	Not applicable.
Germ Cell Mutagenicity	Not applicable.

Aspiration	Not applicable.
STOT/SE	Causes damage to organs through prolonged or repeated exposure.
STOT/RE	Not applicable.

Section 12. Ecotoxicological Information

Harmful to aquatic life with long lasting effects.

Product:	
Persistence and degradability	No data available
Bioaccumulation	No data available
Mobility in Soil	No data available
Other adverse effects	No data available

Ensure that the product does not reach the ground-water, water bodies or the drainage system. No ecological problems are to be expected when the product is handled and used with due care and attention.

Section 13. Disposal Considerations

Disposal Method:

Triple rinse container. Add rinsate to waste container for disposal. Cleaned packaging maybe offered for recycling or landfill in accordance with local regulations. Dispose of unwanted product as a hazardous material according to Local Regulations.

Precautions or methods to avoid: Do not allow to enter waterways.

Section 14 Transport Information

This product is not classified as a Dangerous Good for transport in NZ ; NZS 5433:2020

Section 15 Regulatory Information

EPA Approval Code: Fertilisers (subsidiary) – HSR002571

HSW (HS) Regulations 2017 and EPA Notices	Trigger Quantity
Certified Handler	Not required
Location Certificate	Not required
Tracking Trigger Quantities	Not required
Signage Trigger Quantities	1000L
Emergency Response Plan	1000L
Secondary Containment	1000L
Restriction of Use	Only use for the intended purpose.

Section 16 Other Information

Glossary

EC ₅₀	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
HSW	Health and Safety at Work.
LC ₅₀	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LD ₅₀	Lethal dose to kill 50% of test animals/organisms.
LEL	Lower explosive level.

OSHA	American Occupational Safety and Health Administration.
TEL	Tolerable Exposure Limit.
TLV	Threshold Limit Value-an exposure limit set by responsible authority.
UEL	Upper Explosive Level
WES	Workplace Exposure Limit

References:

1. EPA Hazardous Substances (Safety Data Sheets) Notice 2017
2. Workplace Exposure Standards and Biological Exposure Indices Nov 2023 14th edition.
3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
4. Transport of Dangerous goods on land NZS 5433:2020
5. HSW (Hazardous Substances) Regulations 2017

Disclaimer

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Please contact the Horticulture, if further information is required.

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