

SAFETY DATA SHEET

Manganese Essentials™

Date of Issue: 24/07/2023

CLASSIFICATION OF MATERIAL

HAZARDOUS CHEMICAL

Classified as Hazardous according to Safe Work Australia (GHS)

Not a Dangerous Good according to the Australian Dangerous Goods Code

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name:	Manganese Essentials™
UN Proper Shipping Name:	N/A
Recommended Use:	Fertiliser
Company Name:	Nutri-Tech Solutions Pty Ltd
Address:	7 Harvest Road, Yandina, Qld 4561, Australia
Email:	info@nutri-tech.com.au
ABN:	83 010 472 590
Telephone:	+61 5472 9900
Emergency Telephone Numbers:	Police, Ambulance, Fire: 000 (Mobile 112) Poisons Information Centre (Australia) 13 11 26 Nutri-Tech Solutions Mon-Fri 8:00am-4pm AEST 07 5472 9900 (Australia)

2. HAZARDS IDENTIFICATION

GHS Classification

Specific Target Organ Toxicity (Repeated Exposure) – category 2

Hazardous to the Aquatic Environment (chronic) – category 2

GHS Label elements



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Signal Word:	WARNING
Hazard Statement(s):	
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.
Precautionary Statement(s):	
Prevention	
P260	Do not breathe mist/vapour/spray.
P273	Avoid release to the environment.
Response:	
P314	Get medical advice if you feel unwell.
Disposal:	
P501	Dispose of contents and container in accordance with local and national regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Proportion
Manganese sulfate monohydrate	7785-87-7	10-30%
Other fertiliser ingredients determined to be non-hazardous	N/A	To 100%

4. FIRST AID MEASURES

Ingestion:	Immediately rinse mouth with water (only if patient is conscious) and consult a physician or call the poisons information centre.
Eye:	Immediately rinse with plenty of water for at least 15 minutes. Hold eyelids apart to ensure rinsing of the entire surface of the eyes and lids with water, if irritation persists contact a physician.
Skin:	Remove contaminated clothing and wash with soap and water. If symptoms such as redness or irritation occur, consult a physician. Launder clothes before re-use.
Inhalation:	Remove to fresh air. Get medical attention if irritation occurs or breathing difficulty develops.
First Aid Facilities:	Eye wash station and normal washing facilities.
Advice to Doctor:	Treat symptomatically.
General Information:	N/A

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5. FIRE FIGHTING MEASURES

Flammability:	Non-flammable and non-combustible. May decompose on heating to emit harmful vapours. Fire fighters recommended to wear SCBA.
Extinguishing media:	Use extinguishing media suitable for surrounding fire situations.
Hazchem Code:	N/A
Precautions in connection with fire	Wear SCBA and contain run-off to prevent entry in water or drainage systems.

6. ACCIDENTAL RELEASE MEASURES

Emergency procedures:	Contain spill, do not discharge waste liquid into streams or waterways. Use personal protective equipment as outlined in section 8.
Methods and materials for contamination and clean-up:	Wear protective clothing when cleaning up major spills. Do not contaminate streams or waterways. Wipe up with inert materials and place in labelled containers for waste disposal. Dispose of in compliance with local, state and federal regulations.

7. HANDLING AND STORAGE

Precautions for safe handling:	Avoid contact with skin and eyes, do not inhale spray mist. It is recommended to wear personal protective equipment as outlined in section 8. Prohibit eating, drinking and smoking in contaminated areas. Wash hands after use.
Storage:	Keep out of reach of children. Store in a cool, dry area in a sealed container. Do not store in prolonged sunlight.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards (ingredients only):	TWA = 1mg/m ³ (for manganese compounds).
Biological Limit Values:	None established.
Engineering Controls:	Ensure sufficient ventilation to minimise exposure.
Personal Protective Equipment:	The following protective equipment is recommended when handling this product: safety glasses with side shields or a face shield complying with AS/NZS 1337, gloves of an impervious material conforming to AS/NZS 2161, rubber boots, overalls, plastic apron. Suitable respiratory equipment (e.g. disposable fume mask conforming to AS/NZS 1716) is required when spray mist is present. Ensure a high level of personal hygiene is maintained when using this product. Always wash hands before eating, drinking, smoking and going to the toilet.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Brown liquid
Odour:	Slight odour
pH:	3-4
Flammability:	Not combustible
Solubility in Water:	Fully miscible
Lower Explosion Limit:	No data available
Upper Explosion Limit:	No data available
Specific Gravity:	1.2
Conductivity:	30-50 mS/cm
Melting Point:	No data available
Boiling Point:	No data available
Vapour Pressure:	No data available
Evaporation Rate:	No data available

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions of use.
Hazardous Reactions & Materials to Avoid:	Avoid extreme heat, flames and ignition sources. Hazardous polymerization will not occur.
Hazardous Decomposition Products:	Possible sulfur and manganese compounds, oxides of sulfur may be released. Avoid contact with peroxides.

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11. TOXICOLOGICAL INFORMATION

Acute Toxicity:	Harmful: danger of serious damage to health by prolonged or repeated exposure if inhaled. Manganese Sulfate Monohydrate – LD ₅₀ (rat) 2150mg/kg
Skin:	No data available.
Eye:	No data available.
Respiratory or skin sensitisation:	No data available.
Germ cell mutagenicity:	No data available.
Carcinogenicity:	No data available.
Reproductive toxicity:	No data available.
Specific Target Organ Toxicity (STOT) single exposure:	No data available.
Specific Target Organ Toxicity (STOT) – repeated exposure:	May cause damage to organs through prolonged or repeated exposure through inhalation.
Aspiration Hazard:	No data available.

12. ECOLOGICAL INFORMATION

Ecotoxicity:	No data available.
Persistence/Degradability:	No data available.
Mobility:	No data available.
Environmental Protection:	No data available.
Other Adverse Effects:	Toxic to aquatic life with long lasting effects.

13. DISPOSAL CONSIDERATIONS

Disposal Method:	Where possible, product should be used for its intended purpose including the rinsings of the container. Dispose of in accordance with all local state and national regulations. Do not discard into drains or waterways.
Container:	Triple or preferably pressure rinse containers before disposal. Dispose of used container in accordance with all local and national regulations. Recycle containers if possible (replace cap and return cleaned container to recyclers or collection point). Empty containers and product should not be burned.

14. TRANSPORT INFORMATION

Land Transport (ADG Code):	Not regulated for transport of Dangerous Goods
Air Transport (IATA)	Not regulated for transport of Dangerous Goods
Sea Transport (IMDG Code)	Not regulated for transport of Dangerous Goods

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15. REGULATORY INFORMATION

SUSMP Poisons Schedule: Not scheduled.

16. OTHER INFORMATION

Acronyms	
ADG Code:	Australian Code for the Transport of Dangerous Foods by Road and Rail
AICS:	Australian Inventory of Chemical Substances
CAS Number:	Chemical Abstracts Service Registry
Hazchem Code:	Emergency action code of numbers and letters that provide information to emergency services especially firefighters
IARC:	International Agency for Research on Cancer
GHS:	Globally Harmonised System of Classification and Labelling of Chemicals
NOS:	Not Otherwise Specified
NTP:	National Toxicology Program (USA)
UN Number:	United Nations Number
SUSMP:	Standard for the Uniform Scheduling of Medicines and Poisons
STEL:	Short Term Exposure Limit
TWA:	Time Weighted Average (the average airborne concentration when calculated over a normal eight hour working day for five days a week)
LD₅₀:	Lethal Dose for 50% Mortality
SCBA:	Self Contained Breathing Apparatus

Disclaimer

The data and recommendations presented herein are based upon research of others and are believed to be accurate. However, no warranty is expressed or implied regarding this data or the results to be obtained from use thereof. Nutri-Tech Solutions P/L, assumes no responsibility for the injury to customers or third party proximity caused by the material if reasonable safety procedures are not adhered to as stipulated in this data sheet.

END OF SDS