

# MATERIAL SAFETY DATA SHEET

(Issued 13<sup>th</sup> January 2010)



## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Product name:** **Manganese** Amino Acid Chelate  
**Other names:** manganese glycinate-citrate chelate  
**Recommended use:** Plant fertiliser  
**Supplier name:** Modern Plant Nutrition Pty. Ltd. (ACN 138 851 920)  
**Address:** PO Box 21  
Kallangur  
QLD 4503  
**Telephone:** 0417614406  
**Emergency telephone:** 0402582383 (24 hrs)

## 2. HAZARDS IDENTIFICATION

**HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS**

Classified as Hazardous: **Irritant (Xi)** according to NOHSC:1008(2004)

Not Classified as Dangerous Goods according to ADG Code 7<sup>th</sup> Ed.

**Risk phrases:** R36/38 - Irritating to eyes and skin.  
**Safety phrases:** S25 - Avoid contact with eyes  
S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	CAS Number	Proportion (by weight)
Water	7732-18-5	75-80%
Manganese glycinate citrate chelate	None	10-15%
Iron glycinate citrate chelate	None	5%
Calcium glycinate chelate	None	<5%

### 4. FIRST AID MEASURES

#### Danger / Environment / Hazards

1. Remove affected person from hazard or hazard from person, whichever is safer to prevent further exposure.

#### Specific contact pathway first aid advice

##### IF SWALLOWED:

1. For advice, contact a Poisons Information Centre, Doctor or Ambulance immediately.
2. If swallowed do NOT induce vomiting; further injury may occur.
3. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.
4. Observe the patient carefully.
5. Never give liquid to a person showing signs of being sleepy or with reduced awareness i.e. becoming unconscious.
6. Give water to rinse out mouth, then provide water slowly and as much as the affected person can comfortably drink.
7. Transport to hospital or doctor without delay.

##### EYE CONTACT:

1. Immediately hold eyelids apart and flush the eye continuously with running water.
2. If only one eye is affected, flush with the affected eye lower than the unaffected eye.
3. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
4. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.
5. Cover the eye loosely with a non-stick dressing or clean cloth when flushing ends or runs out.
6. Transport to hospital or doctor without delay.

7. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

#### **SKIN CONTACT:**

1. Immediately remove all contaminated clothing, including footwear.
2. Flush skin and hair with running water (and soap if available).using safety shower were available.
3. Seek medical attention in event of irritation.

#### **NOTES TO DOCTOR OR AMBULANCE:**

- Treat symptomatically.
- Manganese Amino Acid Chelate has potentially high oral bioavailability: consider manganese toxicity if ingested in significant quantities. To a lesser degree, iron and calcium toxicity from the components of this product should also be considered.
- Contact Poisons Information Centre or Toxicology Service for further advice if required.

### **5. FIRE FIGHTING MEASURES**

#### **Suitable extinguishing media**

Water spray, foam, dry chemical or carbon dioxide.

#### **Hazards from combustion products**

May produce oxides of carbon and nitrogen if combusted.

#### **Precautions, special protective equipment** (also refer to Sections 8, 10 of this document)

Wear impermeable, splash proof eye protection.

Wear self-contained breathing apparatus if material is combusting.

### **6. ACCIDENTAL RELEASE MEASURES**

#### **Small spills** (e.g. 20 L drum)

Use an appropriate amount of adsorbent material, such as soil or diatomaceous earth, to contain the spill and soak up excess material.

Dispose of contaminated material appropriately.

### Large spills (e.g. 1000 L intermediate bulk container)

First, contain the spill by using sufficient quantities of inert materials such as soil, sand, gravel etc.

Second, soak up spillage with adsorbent materials such as soil or diatomaceous earth.

Wet vacuuming can be used if available.

Prevent any flows to storm water drains or waterway catchments.

Dispose of contaminated materials appropriately.

## 7. HANDLING AND STORAGE

**Handling:** Avoid contact with eyes and skin.

**Storage:** Keep out of reach of children.  
Store under cover and in a safe place.  
Store in the tightly closed original container.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**National exposure standards:** No exposure standard allocated

**Biological limit values:** No biological limit allocated.

**Engineering controls:** None

**Personal protective equipment:** Eye/face: wear safety goggles (non vented or indirect vented types only).  
Skin: wear chemical resistant gloves made from Nitrile, Neoprene, PVC or natural rubber.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	dark reddish brown liquid
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<b>Odour:</b>	slight metallic odour
<b>pH:</b>	7 - 8
<b>Vapour pressure:</b>	Not available
<b>Vapour density:</b>	Not available
<b>Boiling point/range:</b>	100°C
<b>Freezing/melting point:</b>	0°C
<b>Solubility:</b>	Soluble in water
<b>Density:</b>	1150 Kg/m <sup>3</sup>
<b>Flash point:</b>	Not available
<b>Flammability (explosive) limits:</b>	Not available
<b>Ignition temperature:</b>	Not available
<b>Viscosity:</b>	Flows freely

## 10. STABILITY AND REACTIVITY

<b>Chemical stability:</b>	Stable under normal conditions of use.
<b>Conditions to avoid:</b>	Avoid extreme heat.
<b>Incompatible materials:</b>	Avoid contact with strong acids. Avoid contact with strong oxidizing agents.
<b>Hazardous decomposition products:</b>	In a fire: oxides of carbon (carbon monoxide, carbon dioxide); oxides of nitrogen (nitric oxide, nitrogen dioxide); ammonia
<b>Hazardous reactions:</b>	None known.

## 11. TOXICOLOGICAL INFORMATION

	Potential Acute Health Effects
<b>Inhalation:</b>	Not expected to cause acute health effects
<b>Skin contact:</b>	May cause skin irritation (redness, pain).
<b>Eye contact:</b>	Direct contact with the eyes may cause irritation (redness, pain)
<b>Ingestion:</b>	May cause irritation of the gastrointestinal tract and mucous membrane (burning sensation). May cause nausea. May cause manganese toxicity if ingested in large quantities.

**Chronic health effects:** No ingredients have been classified as carcinogenic, mutagenic or teratogenic.

**Animal toxicity data - product:** No data available

**Animal toxicity data - individual ingredients:** No data available

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

No data available.

### Persistence/degradability

No data available.

### Mobility

No data available

## 13. DISPOSAL CONSIDERATIONS

### **Small quantities:**

Rinse container thoroughly and add washings to irrigation water. Sewage disposal is only allowable if Manganese Amino Acid Chelate satisfies local authority requirements.

The clean container should be prepared (e.g. cut, punctured, crushed) in accordance with disposal facility requirements.

### **Large quantities:**

Contact a licensed waste disposal company.

## 14. TRANSPORT INFORMATION

Not classified as Dangerous Goods according to ADG Code 7<sup>th</sup> Ed.

<b>UN number:</b>	Not applicable
<b>UN proper shipping name:</b>	Not applicable
<b>Class and Subsidiary Risk(s):</b>	Not applicable

Packing Group:	Not applicable
Special precautions for user:	None
Hazchem code:	Not applicable

## 15. REGULATORY

Manganese Amino Acid Chelate is not a regulated material.

No Poisons Schedule number has been allocated to Manganese Amino Acid Chelate or its ingredients according to SUSDP No.23 (2008)

## 16. OTHER INFORMATION

MSDS creation date: 13<sup>th</sup> January 2010  
Revised: 17<sup>th</sup> May 2010

The following codes and databases were referred to in the creation of this document:

NOHSC:2011(2003); NOHSC:1008(2004); ADG Code 7<sup>th</sup> Ed; SUSDP No.23 (2008); HSIS;  
TOXNET

### Disclaimer

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