

Material Safety Data Sheet

Section 1 - Product Identification and Use

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Product Identifier: Manganeseman 4% Mn

Product Use: Predissolved micronutrient for plants.

Supplier: Terralink Horticulture Inc.
464 Riverside Road
Abbotsford, BC V2S 7M1

Emergency Telephone Number: 604 591-7278

Section 2 - Hazardous Ingredients

Hazardous Ingredient:	%	CAS#	LD50/ LC50
nitrioloacetic acid	0-1	139-13-9	1100 mg/kg (rat)

Section 3 - Physical Data

Physical State: Liquid
Odour Threshold: no data
Vapour density: no data
Evaporation Rate: no data
Boiling point: > 100 C
pH: 7-8

Odour and Appearance: reddish liquid
Specific Gravity: 1.25
Vapour Pressure: no data
Freezing point: < 0 C
Coefficient of water/oil distribution: product is more soluble in water than oil

Section 4 - Fire and Explosion Data

Conditions of Flammability: not flammable
Means of extinction: Use extinguishing agents for surrounding fire
Flash Point: Closed cup: not applicable
Upper flammable limit (% in air by volume): not applicable
Lower flammable limit (% in air by volume): not applicable
Autoignition temperature: not applicable
Hazardous combustion products: Carbon monoxide, carbon dioxide
Explosion data- sensitivity to mechanical impact: Not sensitive to mechanical impact
Explosion data- sensitivity to static discharge: Not sensitive to static discharge

Section 5 - Reactivity Data

Chemical Stability: Stable
Incompatible material: Strong acids or bases, strong oxidisers.
Conditions of reactivity: Mixing with incompatible materials.
Decomposition Products: None known

Section 6 - Toxicological Properties

Routes of entry: Eye contact. Inhalation. Ingestion.

Effects of Acute Exposure:

- Skin Contact: Possible mild irritation or staining
- Eye Contact: Irritation. Inflammation of the eye is characterized by redness, watering and itching
- Ingestion: Irritation of tissues
- Inhalation: Irritation of tissues

Effects of Chronic Exposure:

Nitritotriacetic acid is listed as a carcinogen by NTP, under conditions of chronic exposure.

Exposure limits: 10 mg/m³ (8 hour TWA, Total inhalable dust)

Irritancy of product: as described in acute exposure.

Sensitization of product: no data available

Carcinogenicity: listed by NTP

Reproductive toxicity: negative

Teratogenicity: negative

Mutagenicity: negative

Synergistic products: none reported

Section 7 - Preventative Measures

Personal: Wear rubber gloves, eye protection and a dust respirator.

Engineering controls: General ventilation. Keep eye wash nearby.

Leak and Spill Procedures: Wear recommended protective equipment. Dike the spill and pickup absorbents. May be diluted with large amounts of water.

Waste Disposal: Reuse if possible. Dispose in accordance with federal, provincial and local regulations.

Handling Procedures and equipment: Wear recommended protective equipment. Protect eyes, skin

and clothing from contact with this product. Do not breathe vapours or mist. Use with adequate ventilation. Wash thoroughly after handling.

Storage Requirements: Store in a cool, dry, well ventilated area. Do not freeze

Special shipping information:

TDG	not regulated
WHMIS	Class D-2B Toxic

Section 8 - First Aid

Get medical assistance for all but minor exposures.

Skin: Flush with water. Remove contaminated clothing and wash before reuse.

Eyes: Flush eyes with water for 20 minutes. If irritation persists seek medical aid.

Inhalation: Remove victim to fresh air. Restore or support breathing as required. Keep victim

warm and at rest. Seek medical aid.

Ingestion: Aspiration hazard. Get medical attention immediately. Do not induce vomiting or give anything by mouth. If victim is drowsy or unconscious lay victim on side with the head down.

Section 9 - Preparation Date: January 2009 by Michael Olson Phone: 604-591-7278