

## Safety Data Sheet: Vital Plant ManTrain

According to UN GHS 9th Ed, SANS 10234:2019, Regulation EC 1272/2008 [EU-GHS/CLP]

### SECTION 1. IDENTIFICATION OF MIXTURE/SUBSTANCE

#### 1.1 PRODUCT IDENTIFIERS

**Product Name:** Vital Plant ManTrain

**Product Type:** Foliar Applied Plant Nutrient

**Product Description:** Colourless Liquid

#### 1.2 DETAILS OF SUPPLIER OF SAFETY DATA SHEET

AgriLibrium (Pty) Ltd, Suite #120, Private Bag X1, Melkbosstrand, 7437, South Africa

#### 1.3 RECOMMENDED AND RELEVANT USES

**Identified Uses:** Foliar applied micro-nutrient.

#### 1.4 EMERGENCY CONTACT

**Emergency Number:** +27 861 555 777

### SECTION 2. HAZARD IDENTIFICATION

#### 2.1 CLASSIFICATION OF MIXTURE OR SUBSTANCE

Pictogram(s): 

Signal word: Warning

Hazard Statement(s):

H373	Specific target organ toxicity-repeated exposure.
H411	Hazardous to the aquatic environment, long term (Chronic)

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### 2.2 PRECAUTIONARY STATEMENTS

P102	Keep out of reach of children.
P203	Obtain, read and follow safety instructions before use
P264 + P265	Wash hands thoroughly after handling. Do not touch eyes.
P280	Wear protective gloves/ eye protection
P273	Avoid release to the environment

P301 + P319	If swallowed: Get medical help if you feel unwell.
P332 + P352	If skin irritation occurs: Wash with plenty of water
P305 + P337 + P351	If in eyes/ if eye irritation persists: Rinse cautiously with water for several minutes.

### 2.3 OTHER HAZARDS

None

## SECTION 3. COMPOSITION & INGREDIENTS

### 3.1 PRODUCT DESCRIPTION AND SUBSTANCES

<b>Chemical Name:</b>	Manganese Sulphate
<b>CAS No.</b>	10034-96-5
<b>Formulation</b>	30 - 40 %

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### SECTION 4. FIRST-AID MEASURES

In the case of seeking medical attention, provide this safety data sheet to the physician in attendance.

#### 4.1 DESCRIPTION OF NECESSARY FIRST-AID MEASURES

**Following Ingestion:** If product has been ingested seek medical help, DO NOT induce vomiting unless instructed to so by a medical physician. Drink water and rinse mouth with water.

**Following Skin Contact:** If skin irritation occurs, wash affected areas of skin with plenty of water for at least 15 minutes. Seek medical help if skin irritation persists.

**Following Eye Contact:** Cautiously wash eyes with plenty of water for at least 15 minutes. If eye irritation continues to occur seek medical attention.

### SECTION 5. FIRE-FIGHTING MEASURES

#### 5.1 SUITABLE EXTINGUISHING MEDIA

Dry powder or Carbon Dioxide

#### 5.2 SPECIFIC HAZARDS

Combustion products may cause irritation.

#### 5.3 SPECIAL PROTECTIVE ACTIONS

Not applicable

### SECTION 6. ACCIDENTAL RELEASE MEASURES

#### 6.1 PERSONAL PRECAUTIONS

**Protective Equipment:** Ensure that protective nitrile gloves, safety goggles and safety boots are used for personal protection when cleaning spillages. Isolate area of spillage.

#### 6.2 ENVIRONMENTAL PRECAUTIONS

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Refrain from allowing product to be released to the environment.

### SECTION 7. HANDLING & STORAGE

#### 7.1 SAFE HANDLING PRECAUTIONS

Use product in agreement with regards to good industrial hygiene and safety. Do not eat, drink or smoke whilst handling or using the product. When handling product, wear suitable PPE (Personal Protective Equipment) such as nitrile gloves, safety goggles and safety shoes. Avoid ingestion of product as well as eye and skin contact as far as possible. Keep away from strong oxidising agents.

#### 7.2 CONDITIONS FOR SAFE STORAGE

Keep out of reach of children and animals. Store in a cool, dry, well-ventilated are. Do not store together with strong oxidising agents.

### SECTION 8. EXPOSURE CONTROLS

**Occupational Exposure Limits:** None

**Biological Exposure Limits:** None

#### 8.1 APPROPRIATE ENGINEERING CONTROLS

Store in demarcated area and ensure that the product does not come into direct contact with other hazardous chemicals i.e., highly alkaline products. Ensure that caps of drums are tightly closed to avoid any spillages.

#### 8.2 INDIVIDUAL PERSONAL PROTECTIVE EQUIPMENT (PPE)

Depending on application or handling of product, personal protective equipment (PPE) should be worn and used. Safety goggles should be worn when handling or decanting product to avoid splashing into eyes. Long overall clothing should be worn when handling product to avoid contact with skin. Impermeable gloves can be worn when handling product. Safety shoes should be worn when handling pallets or drums of product.

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### SECTION 9. PHYSICAL & CHEMICAL PROPERTIES

#### 9.1 BASIC INFORMATION ON PHYSICAL AND CHEMICAL PROPERTIES

- a) **Appearance:** Colourless Liquid
- b) **Odour:** Odourless
- c) **pH:**  $5.5 \pm 0.1$  @ 25°C
- d) **Melting point/range (°C):** No information available
- e) **Boiling point/range (°C):** No information available
- f) **Flash point (°C):** Not applicable.
- g) **Evaporation rate:** No information available.
- h) **Flammability:** N/A
- i) **Ignition temperature (°C):** No information available.
- j) **Upper/lower flammability/explosive limits:** No information available.
- k) **Vapour pressure (25°C):** No information available.
- l) **Vapour density:** No information available.
- m) **Specific Gravity:**  $1.36 \pm 0.02$
- n) **Water Solubility:** Water Dispersible
- o) **Viscosity:** No information available.
- p) **n-Octanol/Water partition coefficient:** No information available.
- q) **Auto-ignition temperature:** No information available.
- r) **Decomposition temperature:** No information available.
- s) **Explosive Properties:** No information available.
- t) **Oxidizing Properties:** No information available.

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### 9.2 OTHER INFORMATION

No other Data Available

## SECTION 10. STABILITY & REACTIVITY

### 10.1 REACTIVITY & CHEMICAL STABILITY

The product is stable and not reactive under correct and recommended storage conditions.

### 10.2 CONDITIONS TO AVOID

Contact with any incompatible materials.

### 10.3 INCOMPATIBLE MATERIALS

Highly Alkaline products

### 10.4 HAZARDOUS DECOMPOSITION PRODUCTS

None

## SECTION 11. TOXICOLOGICAL INFORMATION

Components	Concentration (%)	Dermal	Oral	Inhalation
Manganese Sulphate	30 - 40	No data	No data	No data

### 11.1 INFORMATION ON TOXICOLOGICAL EFFECTS

**Acute Oral Toxicity:** Not classified.

**Acute Dermal Toxicity:** Not classified.

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**Acute Inhalation Toxicity:** Not classified.

**Chronic toxicity:** Not classified.

**Skin corrosion/irritation:** Not classified.

**Eye corrosion/irritation:** Eye Damage 1

**Respiratory or skin sensitization:** Not classified.

**Germ cell mutagenicity:** Not classified.

**Carcinogenicity:** Not classified

**Reproductive toxicity:** Not classified.

**STOT-single exposure:** Not classified.

**STOT-repeated exposure:** STOT RE 2

**Aspiration hazard:** Not classified.

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### 11.2 ADDITIONAL INFORMATION

No additional information available

## SECTION 12. ECOLOGICAL INFORMATION

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### 12.1 TOXICITY

Aquatic Chronic 1

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### 12.2 PERSISTANCE AND DEGRADABILITY

No information available

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### 12.3 BIOACCUMULATIVE POTENTIAL

No information available

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### 12.4 MOBILITY IN SOIL

No information available

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### 12.5 RESULTS OF PBT & VPVB ASSESSMENT

No information available

## SECTION 13. DISPOSAL CONSIDERATIONS

### 13.1 WASTE TREATMENT METHODS

First consider re-using or recycling of product before regarding as waste material. Disposal of product should be conducted to municipal, provincial and national law and regulations. National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008, R.634). When spillage of product occurs, dilute with large amounts of water and wash away.

## SECTION 14. TRANSPORT INFORMATION

Transport  
Pictogram(s):



	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO/IATA)
UN No.	3077	3077	3077
UN Proper shipping name	Not regulated	Not regulated	Not regulated
Transport hazard class(es)	9	9	9
Packaging group	III	III	III
Marine pollutant	Yes	Yes	Yes

## SECTION 15. REGULATORY INFORMATION

Occupational Health and Safety Act, 1993. Environmental Conservation Act 73 of 1989. National Water Act 36 of 1998. General Safety Regulations 1986. Globally Harmonized System of Classification and Labelling of Chemicals (GHS) Rev 9, 2021. Regulation EC 1272/2008 [EU-GHS/CLP] and EU directives 67/548/EEC or EC 1999/45/EC



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### SECTION 16. OTHER INFORMATION

#### 16.1 LEGISLATION RELATED TO SAFETY DATA SHEET

This safety data sheet has been designed in according to the standards of the International Organization for Standardization.

#### 16.2 DISCLAIMER

Date of Issue: 03/01/2023

Validated by: Dr C. Malan & H. Korff on 28/05/2022

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