

# MAX-IN® ULTRA MANGANESE

# SAFETY DATA SHEET

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** MAX-IN® ULTRA MANGANESE  
**Other identifier:** Liquid manganese fertilizer  
**Recommended use:** Micronutrient fertilizer  
**Restrictions on use:** Agriculture  
**Registration Holder:** Winfield Solutions Registration Holdings (Pty) Ltd.

Co Reg No 2015/312008/07  
 PO Box 10413  
 Aston Manor, 1630, South Africa  
 (011) 3962233

**Telephone:**

**Fax:**

**Website:**

[www.villacrop.co.za](http://www.villacrop.co.za)

**Distributor:**

**Villa Crop Protection (Pty) Ltd.**  
 PO Box 10413

Aston Manor, 1630, South Africa  
 (011) 3962233

**Telephone:**

**Fax:**

**Website:**

[www.villacrop.co.za](http://www.villacrop.co.za)

### Emergency telephone numbers:

#### 24 Hr Transport / Spill emergency no:

Envirosure. +27 31 205 4918  
 (Hazcall24) +27 86 044 4411

(Client: Villa Crop Protection)

Griffon Poison Information Centre +27 82 446 8946  
 (Client: Villa Crop Protection)

### Poisoning Emergency telephone numbers:

Griffon Poison Information Centre +27 82 446 8946  
 Poisons Information Centre +27 861 555 777

### Villa Crop Protection Emergency number:

**National Safety, Health and Environmental Manager:**  
 +27 63 698 0668

## 2. HAZARDS IDENTIFICATION

UN GHS, Regulation EC 1272/2008 [EU-GHS/CLP] EU & SANS 10234:2008		
Hazard classes	Hazard categories	H-statements
<b>Health</b>		
Dermal	Skin Dam. 1	H314
Specific Target Organ Toxicity Repeated Exposure	STOT RE 2	H373

### The most important adverse effects:

#### Physiochemical effects:

None known.

#### Human health effects:

Causes severe skin burns and eye damage.

### Label elements:



**Signal word:** Danger.

#### Hazard statements:

H314: Causes severe skin burns and eye damage.

H373: May cause damage to organs through prolonged or repeated exposure.

#### Precautionary statements:

P264: Wash hands and face thoroughly after handling.

P280: Wear impervious rubber gloves and boots, protective clothing and chemical safety goggles.

P301/330/331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303/361/353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water and non-abrasive soap.

P305/351/338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310: Immediately call a POISON CENTRE.

#### Special labelling of certain mixtures:

None known.

#### Other hazards:

None known.

#### Toxicity:

Classification according to GHS: Unclassified.

Classification according to WHO: Unclassified.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

**Substance/Mixture:** Mixture.

### Composition:

Chemical Name	CAS	Conc. (wt %)	Classification EC 1272/2008
Manganese sulfate	10034-96-5	15.62%	STOT RE 2 (H373) Aquatic Chronic 2 (H411)

## 4. FIRST AID MEASURES

Remove the victim from the area of exposure. Wash off remaining material with plenty of water. In the event of any complaints or symptoms, avoid further exposure and consult a doctor if symptoms persist.

**Inhalation:** Remove person from contaminated area to fresh air and assist breathing as needed. Seek medical attention if irritation occurs.

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**Skin:** Remove contaminated clothing and wash before re-using. Flush skin with water and then wash with soap and water. **Seek medical attention immediately.**

**Eyes:** Flush eyes with clean water for at least 15 minutes. Lift eyelids to facilitate irrigation. If present, remove contact lenses after 5 minutes and continue rinsing. **Seek medical attention immediately.**

**Ingestion:** Seek medical attention or call a poison control center for treatment advice. Do not induce vomiting unless instructed to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

**Anticipated acute effects:**

Causes severe skin burns and eye damage.

**Anticipated delayed effects:** May cause damage to organs through prolonged or repeated exposure.

**Most important symptoms/effects:**

**Eyes:** May cause serious and irreversible eye damage if exposed for more than a few minutes.

**Skin:** May cause serious and irreversible skin damage if exposed for more than a few minutes.

**Inhalation:** Repeated inhalation exposure may damage the central nervous system and lungs.

**Ingestion:** May cause burning of the esophagus due to low pH of concentrate.

**Advice to physician:** There is no specific antidote known. Treat symptomatically and supportively.

## 5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media:** Water spray or fog, carbon dioxide, dry chemical or foam.

**Unsuitable Extinguishing Media:** Water jet.

**Specific hazards:** Closed containers may explode from vapor expansion in high heat. Contain run-off by diking to prevent contamination of water supplies. Carbon oxides, Sulfur oxides, and Nitrogen oxides; Airborne manganese may also be present (harmful to respiratory system.)

**Special Fire Fighting Procedures:** Remove spectators from surrounding area. Isolate the fire area and evacuate all personnel downwind of the fire. Fight fire from maximum distance and use unmanned hose holder or monitor nozzles. Keep upwind. Avoid inhaling hazardous vapours and fumes from burning materials. Remove container from fire area if possible and without risk. Do not scatter the burning material. Contain water used for fire fighting for later disposal. Do not allow spilled product to enter sewers or waterways.

**Personal protective equipment:** Wear NIOSH/MSHA approved self-contained breathing apparatus and full bunker gear.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** Avoid contact with skin and eyes. Do not breathe in fumes. Ventilate area of spill or leak, especially in contained areas.

**Protective equipment:** Refer to Section 8 for personal protective equipment to be worn during containment and clean-up of a spill involving this product.

**Emergency procedures:** Alert firefighting personnel, evacuate unprotected personnel and animals.

**Environmental Precautions:** Prevent spilled product from entering sewers, waterways or ground water.

**Methods and Materials for Containment:** Contain spilled product by diking area with sand or earth.

**Methods and Materials for Clean-up:** Cover contained spill with an inert absorbent material such as sand, vermiculite or other appropriate material. Vacuum, scoop, or sweep up material and place in a container for disposal. Do not place spilled material back in original container.

## 7. HANDLING AND STORAGE

**Handling:**

**Precautions for safe handling:** Avoid contact with skin and eyes. Ensure adequate ventilation during handling and use. Do not handle broken containers without protective equipment. Immediately clean up spills that occur during handling. Keep containers tightly closed when not in use. In the case of contact with the product refer to First Aid Measures – Section 4.

**General occupational hygiene:** Practice good hygiene when using this material. Wash hands before eating, drinking, chewing gum, smoking, using the toilet or applying cosmetics. Worker should shower at the end of each workday. Launder all clothing before it is re-used.

**Storage:**

**Conditions for safe storage:** Keep out of reach of unauthorised persons, children and animals. Store in its original labelled container tightly closed, in an isolated, dry, cool and well-ventilated area. Avoid excessive heat. Avoid cross contamination with other pesticides and fertilisers.

**Incompatible substances and mixtures:** Refer to product label.

**Packaging material:** Plastic bottles.

## 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

**Permissible concentration:** No occupational exposure limits has been determined for the significant ingredients in this product.

**Engineering Controls:**

It is essential to provide adequate ventilation. The measures appropriate for a particular worksite depend on how this material is used and on the extent of exposure. Local Exhaust: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs or other specified exposure limits.

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Local exhaust ventilation is preferred. Ensure that control systems are properly designed and maintained. Comply with occupational safety, environmental, fire, and other applicable regulations.

### Personal Protective Equipment:

**Respiratory Protection:** For most well-ventilated conditions, no respiratory protection should be needed. If airborne concentrations exceed exposure limits, use a NIOSH approved air-purifying respirator with cartridges/canisters approved for general particulates.

**Hand Protection:** This product can cause serious skin damage. Wear chemically protective gloves to prevent exposure to skin.

**Eye Protection:** To avoid contact with eyes, wear chemical safety goggles or safety glasses and full face shield. Contact lenses are not protective eye devices. An emergency eyewash or water supply should be readily accessible to the work area.

**Skin and Body Protection:** Wear long-sleeve shirt, long pants and chemically protective boots plus socks to prevent skin contact.

**Emergency eyewash:** Where there is any possibility that an employee's eyes may be exposed to this mixture; the employer should provide an eyewash fountain or appropriate alternative within the immediate work area for emergency use.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** Clear pink to tea brown liquid. (Colour darkens over time.)

**Odour:** Slight organic odour.

**pH:** <2.0

**Melting point:** Not available.

**Freezing Point:** Not available.

**Boiling Point:** Not available.

**Flash Point:** Non-combustible.

**Flammability:** Not Flammable.

**Upper/lower explosion limits:** Not available.

**Vapour Pressure (mm Hg):** Not available.

**Relative Vapour Density:** Not available.

**Specific gravity:** 1.22

**Solubility:** 100% soluble.

**n-octanol/water partition coefficient:** Not available.

**Auto-ignition temperature:** Not available.

**Decomposition temperature:** Not available.

**Viscosity:** Not available.

### 10. STABILITY AND REACTIVITY

**Chemical Stability:** Stable for 2 years at ambient temperature and pressure, under normal storage and handling conditions, if containers are tightly sealed. Avoid storage under extreme temperatures and conditions. Store below 50°C, preferably below 30°C, and not for prolonged periods in direct sunlight.

**Reactivity:** Due to its low pH this product can be corrosive to tanks, pumps, meters and fittings. Do not use aluminum or mild steel with this product.

**Possibility of Hazardous Reactions:** None known.

**Conditions to Avoid:** Avoid excessive heat and freezing temperatures.

**Incompatible Materials:** Avoid mixing with calcium solutions, strong reducing agents and finely powdered metals.

**Hazardous Decomposition Products:** During prolonged exposure to high heat or fire conditions Carbon oxides, Sulfur oxides, and Nitrogen oxides may form. Toxic manganese may also be present upon decomposition.

### 11. TOXICOLOGICAL INFORMATION

#### ACUTE TOXICITY:

**Calculated according to GHS.**

**Oral LD<sub>50</sub> > 9000 mg/kg**

**Skin Corrosion/Eye damage:** Causes severe skin burns and eye damage.

**Skin Sensitization:** Not available.

**Respiratory Sensitization:** Not available.

**Reproductive cell mutagenicity:** Not available.

**Carcinogenicity:** Not available.

**Reproductive toxicity:** Not available.

**Specific target organ toxicity – single exposure:** Not available.

**Specific target organ toxicity – repeated exposure:** May cause damage to organs through prolonged or repeated exposure.

**Aspiration hazard:** Not available

**Chronic Effects:** Not available.

#### POTENTIAL ADVERSE EFFECTS:

**Inhalation:** Repeated inhalation exposure may damage the central nervous system and lungs.

**Skin contact:** May cause serious and irreversible skin damage if exposed for more than a few minutes.

**Eye contact:** May cause serious and irreversible eye damage if exposed for more than a few minutes.

**Ingestion:** May cause burning of the esophagus due to low pH of concentrate.

### 12. ECOLOGICAL INFORMATION

#### ECOTOXICITY DATA:

Not determined.

#### ENVIRONMENTAL EFFECTS:

**Persistence and degradability:** Not determined.

**Bio-accumulative Potential:** Not determined.

**Mobility in soil:** Not determined.

**Other adverse effects:** Not determined.

### 13. DISPOSAL CONSIDERATIONS

**Waste:** Do not contaminate rivers, dams or any other water sources with the product or used containers. The product may be taken to a registered waste disposal site

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or incineration plant. Where possible, recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations.

**Container:** Emptied flasks/containers retain vapour and product residues. Observe all labelled safeguards until container/bottle is destroyed. Do not re-use the empty container/flask for any other purpose but destroy it by perforation and flattening and bury in an approved dumpsite. Prevent contamination of food, feedstuffs, drinking water and eating utensils. Comply with local legislation applying to waste disposal.

## 14. TRANSPORT INFORMATION

**UN Number:** 3265  
**Road Transport ADR/IRD:**  
 Class: 8  
 Packaging group: III  
 UN proper Shipping name: Corrosive liquid, acidic, organic, n.o.s. (carboxylic acid)  
**Maritime Transport IMDG/IMO:**  
 Class: 8  
 Packaging group: III  
 UN proper Shipping name: Corrosive liquid, acidic, organic, n.o.s. (carboxylic acid)  
**Marine Pollutant (Y/N): No**  
**Air transport IATA/ICAO:**  
 Class: 8  
 Packaging group: III  
 UN proper Shipping name: Corrosive liquid, acidic, organic, n.o.s. (carboxylic acid)  
**Special/Environmental Precautions: None known.**  
**Transport in bulk** (according to MARPOL 73/78, Annex II and the IBC code): Not available.

## 15. REGULATORY INFORMATION

**Safety, health and environmental regulations/legislation for the mixture:**  
 OSHA 1993 Regulations for Hazardous Chemical Substances.

**Relevant information regarding restrictions:** None.

**EU regulation:** Regulation EC1272/2008 (EU-GHS/CLP)

**Other national regulations:** None.

**Chemical Safety Assessment carried out?** No

## 16. OTHER INFORMATION

**Packaging:** 500ml, 1, 5, 10, 20 and 25L plastic bottles.

**Additional H statements (formulants):**

**H411:** Toxic to aquatic life with long lasting effects.

**Disclaimer:** The information on this sheet is not a specification; it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage and use of the product. It is not applicable to unusual or non-standard uses of the product nor where instructions or recommendations are not followed. All information is given in good faith but without guarantee in respect of accuracy, and no responsibility is accepted for errors and omissions or the consequence thereof.

## END OF DOCUMENT

**Compiled:** March 2017  
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For detailed information on revisions, contact the Registration holder.