

MAX-IN® ZINC

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: MAX-IN® ZINC
Other identifier: Liquid zinc 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
Telephone: (011) 3962233
Fax: (011) 3964666
Website: www.villacrop.co.za

Distributor: Villa Crop Protection (Pty) Ltd.
 PO Box 10413
 Aston Manor, 1630, South Africa
Telephone: (011) 3962233
Fax: (011) 3964666
Website: 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
Health		
Specific Target Organ Toxicity Single Exposure	STOT SE 3	H335

The most important adverse effects:
Physiochemical effects:
 None known.
Human health effects:
 May cause respiratory irritation.
Label elements:



Signal word: Warning.
Hazard statements:
 H335: May cause respiratory irritation.
Precautionary statements:
 P261: Avoid breathing mist, vapours and spray.
 P403/233: Store in a well-ventilated place. Keep container tightly closed.
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
Monoethan olamine	141-43-5	< 14%	Acute Tox. 4 (H302) Acute Tox. 4 (H312) Skin Corr. 1B (H314) Acute Tox. 4 (H332)
Zinc oxide	1314-13-2	< 10%	Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)

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

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Ingestion: Seek medical attention immediately 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:

May cause respiratory irritation.

Anticipated delayed effects: None known.

Most important symptoms/effects:

Eyes: None known.

Skin: None known.

Inhalation: None known.

Ingestion: None known.

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

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Use carbon dioxide or dry chemical for small fires and water fog or foam for large fires.

Unsuitable Extinguishing Media: Water jet. Use a water jet only to cool heated containers. This product will produce foam when mixed with water.

Specific hazards: Toxic gases such as carbon monoxide and other asphyxiates may form as well.

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: 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. Do not use combustible material such as sawdust. 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: 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

Components	Exposure limits	Type of exposure limit	Source
Ethanolamine	3 ppm (ST) 6 ppm	8-hour TWA	OSHA PEL
Zinc oxide (Total dust)	10 mg/m ³	8-hour TWA	OSHA PEL

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

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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: Wear chemically protective gloves to prevent against skin contact.

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.

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: Amber to brown liquid.

Odour: Slight organic odour.

pH: 6.0-7.0

Melting point: Not available.

Freezing Point: Not available.

Boiling Point: Not available.

Flash Point: Not available.

Flammability: Not Flammable.

Upper/lower explosion limits: Not available.

Vapour Pressure (mm Hg): Not available.

Relative Vapour Density: Not available.

Specific gravity: 1.23

Solubility: Miscible.

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: None known.

Possibility of Hazardous Reactions: None known.

Conditions to Avoid: Avoid excessive heat and temperatures below 5°C.

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

Hazardous Decomposition Products: Toxic gases such as carbon oxides may be formed in a fire situation.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

Oral LD₅₀ > 7187 mg/kg

Inhalation LC₅₀ 15 mg/l

Skin Irritation: Does not cause skin irritation (rabbit).

Eye Irritation: Causes mild eye irritation clearing in approximately 1 hour (rabbit).

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: May cause respiratory irritation.

Specific target organ toxicity – repeated exposure: Not available.

Aspiration hazard: Not available

Chronic Effects: Not available.

POTENTIAL ADVERSE EFFECTS:

Inhalation: Inhalation of mist may cause irritation of the upper respiratory tract.

Skin contact: Short-term exposure is unlikely to cause irritation. Prolonged contact may cause redness and itching.

Eye contact: May cause mild but temporary irritation.

Ingestion: May be harmful if swallowed.

12. ECOLOGICAL INFORMATION

ECOTOXICITY DATA: Based upon data from 63% of the composition.)

Fish:

LC₅₀ 1137 mg/l

Daphnia:

EC₅₀ 349 mg/l

Aquatic plant:

EC₅₀ 82 mg/l

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 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

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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.

accepted for errors and omissions or the consequence thereof.

14. TRANSPORT INFORMATION

UN Number: Not regulated.
Road Transport ADR/IRD:
 Class: 9
 Packaging group: III
Maritime Transport IMDG/IMO:
 Class: 9
 Packaging group: III
Marine Pollutant (Y/N): No
Air transport IATA/ICAO:
 Class: 9
 Packaging group: III
Special/Environmental Precautions: None known.
Transport in bulk (according to MARPOL 73/78, Annex II and the IBC code): Not available.

END OF DOCUMENT

Compiled: March 2017
Reviewed: July 2019
Revision no.: (3)
Next revision date: July 2024

For detailed information on revisions, contact the Registration holder.

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):
H302: Harmful if swallowed.
H312: Harmful in contact with skin.
H314: Causes severe skin burns and eye damage.
H332: Harmful if inhaled.
H400: Very toxic to aquatic life.
H410: Very 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