

VILLA UNIZEB 800 WP

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: VILLA UNIZEB 800 WP
Other identifier: Mancozeb 800 WP
Recommended use: Fungicide
Restrictions on use: Agriculture

Supplier: Villa Crop Protection (Pty) Ltd.
 PO Box 10413
 Aston Manor, 1630, South Africa

Telephone: (011) 396 2233
Fax: (011) 396 4666
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		
Oral	Acute Tox. 5	H303
Dermal	Acute Tox. 5	H313
	Skin Sens. 1	H317
Eye	Eye Irrit. 2B	H320
Inhalation	Acute Tox. 4	H332
Reproductive Toxicity	Repr. 2	H361d
Environment		
Aquatic Acute	Aquatic Acute 1	H400

The most important adverse effects:
Physiochemical effects:
 None known.
Human health effects:
 Harmful if inhaled.
 Suspected of damaging the unborn child.

Label elements:



Signal word: Warning.

Hazard statements:
 H303: May be harmful if swallowed.
 H313: May be harmful in contact with skin.
 H317: May cause an allergic skin reaction.
 H320: Causes eye irritation.
 H332: Harmful if inhaled.
 H361d: Suspected of damaging the unborn child.
 H400: Very toxic to aquatic life.

Precautionary statements:
 P202: Do not handle until all safety precautions have been read and understood.
 P264: Wash hands and face thoroughly after handling.
 P271: Use only outdoors or in a well-ventilated area.
 P273: Avoid release into the environment.
 P280: Wear impervious rubber gloves and boots, protective clothing and chemical safety goggles.
 P302/352: IF ON SKIN: Wash with plenty of 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.
 P308/313: If exposed or concerned: Get medical attention.
 P333/313: If skin irritation or rash occurs: Get medical advice.
 P337/313: If eye irritation persists: Get medical advice.
 P391: Collect spillage.
 P405: Store locked up.
 P501: Dispose of contents/container to suitable landfill in accordance with local regulations.

Special labelling of certain mixtures:
 None known.

Other hazards:
 None known.

Toxicity:
 Classification according to GHS: Cat. 4
 Classification according to WHO: Cat. III
 Classification according to GPIC (Active): Cat. U

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture.

Composition:

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Chemical Name	CAS	Conc. (M/m %)	Classification EC 1272/2008
Mancozeb	8018-01-7	80%	Skin Sens. 1 (H317) Aquatic Acute 1 (H400) Repr. 2 (H361d)
Na salt Alkyl aryl Sulphonate	68037-49-0	< 5%	Acute Tox. 4 (H302) Acute Tox. 4 (H312) Skin Corr. 1C (H314) Eye Dam. 1 (H318)

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. In cases of extreme high doses have been absorbed, reactions occurred. Otherwise reactions are not likely to occur.

Inhalation:

Move the victim to fresh air or remove source of contamination. Monitor for respiratory distress. Keep person warm and at rest. Treat symptomatically and supportively as and when required. Qualified personnel should perform administration of oxygen. Get medical attention immediately if necessary.

Skin contact:

Remove all contaminated clothing and shoes. Gently wipe off excess chemical. Wash affected skin areas gently and thoroughly with water and non-abrasive soap. Do not rub the skin. If irritation persists, seek medical advice. Persons who become sensitized may require specialized medical management with anti-inflammatory agents or cortisone containing emulsions.

Eye contact:

Immediately flush the contaminated eyes with gently flowing lukewarm water for 15 to 20 minutes, occasionally lifting the upper and lower lids. If present, remove contact lenses after 5 minutes and continue rinsing. **Seek medical attention.**

Ingestion:

Seek medical attention or call a poison control centre for treatment advice. Do not induce vomiting without medical advice. Give two glasses of water to drink. Never give anything by mouth to an unconscious person. Qualified medical personnel should perform administration of gastric lavage or oxygen.

Anticipated acute effects: None known.

Anticipated delayed effects: None known.

Most important symptoms/effects: Symptoms of exposure to the product include: itching, scratchy throat,

sneezing and coughing. Nausea, vomiting, diarrhoea, headache, ataxia, confusion and fatigue have occurred in cases of accidental swallowing.

Advice to physician: No specific antidotes are available against dithiocarbamate poisoning. If a large amount of **Mancozeb** has been ingested in the last few hours, and if copious vomiting has not already occurred, the stomach must be emptied, and steps taken to limit gastrointestinal absorption. If the patient is fully alert and nervous system depression is not anticipated, oral administration of Syrup of Ipecac will assist to empty the stomach.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Extinguish fires with carbon dioxide, dry chemical or alcohol-resistant foam. Avoid water coming in contact with the product.

Unsuitable Extinguishing Media: High volume water jet. Use water spray only to cool heated containers.

Specific hazards: Avoid the accumulation of dust as these pose an explosion hazard. Combustion may lead to the production of toxic or irritating vapours including hydrogen sulphide, carbon disulphide and oxides of carbon, sulphur or nitrogen.

Special Fire Fighting Procedures: Remove spectators from the 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 fumes/dust from burning materials. Remove bags/plastic container from fire area if possible and without risk. Do not use high volume water jet, due to contamination risk. Do not scatter the burning material. Water can be used to cool unaffected bags/plastic containers but must be contained for later disposal. Contain fire control agents for later disposal. Avoid pollution of waterways by run-off from the site.

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

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Avoid contact with eyes and skin. Do not breathe in spray mist or dust. Ventilate area of spill or leaks, 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. This product is classified to be very toxic to aquatic organisms. Any spillage or uncontrolled discharge into watercourses

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should be reported immediately to the police and the Department of Water/Environmental Affairs.

Methods and Materials for Containment: Contain spilled product by picking up with an electrically protected vacuum cleaner or by wet brushing and transfer to a container for disposal. Do not create a powder cloud by using a brush or compressed air. Label containers with the contents and dispose of according to local regulations. Do not place spilled material back in original container/bag. Do not re-use spilled material. Collect washings and add to the drums already collected. Do not flush spilled material or washings into drains or waterways. To decontaminate the spill area, tools and equipment, wash with water and suitable detergent. See section 13 for disposal considerations.

7. HANDLING AND STORAGE

Handling:

Precautions for safe handling: Avoid contact with eyes and skin. Ensure adequate ventilation during handling and use. Do not handle broken containers/bags without protective equipment. Immediately clean up spills that occur during handling. Keep containers/bags 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 product. 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 the product in its bag/original labelled container tightly closed, in an isolated dry cool and well-ventilated area. Keep away from sources of ignition. Do not allow product to be exposed to moisture or excessive heat. Do not store this product next to foodstuffs, feed and water supplies. Avoid cross contamination with other pesticides and fertilisers.

Incompatible substances and mixtures: Refer to product label.

Packaging material: Plastic containers and 3-ply paper bags.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Permissible concentration

Components	Exposure limits	Type of exposure limit	Source
Mancozeb	1 mg/m ³	TWA	NIOSH
	3 mg/m ³	STEL	

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 OELs 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.

Personal Protective Equipment:

Respiratory Protection: For most well-ventilated conditions, no respiratory protection should be needed. If used in a poorly ventilated area (airborne concentrations exceed exposure limits), use a NIOSH approved air-purifying respirator with cartridges/canisters approved for organic vapours/mist/dust.

Hand Protection: Wear appropriate chemical resistant protective rubber gloves whenever the product is handled to prevent skin contact.

Eye Protection: Use chemical safety goggles/face-shield to prevent eye contact. Contact lenses are not protective eye devices.

Skin and Body Protection: Employee must wear appropriate chemical-resistant protective clothing, e.g.; coveralls, rubber boots, hat and other equipment to prevent repeated or prolonged skin contact with this product.

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Greyish yellow wettable powder.

Odour: Musty odour.

pH (1% aqueous dilution): 6.5

Melting point: Decomposes before melting @ 192°C.

Freezing Point: Not available.

Boiling Point: Not available.

Flash Point: Not available.

Flammability: Not available.

Upper/lower explosion limits: Not available.

Vapour Pressure (mm Hg): Not available.

Relative Vapour Density: Not available.

Density/Relative density: 637.6 kg/m³.

Solubility: Dispersible.

n-octanol/water partition coefficient: Not available.

Auto-ignition temperature: Not available.

Decomposition temperature: Not available.

Viscosity: Not available.

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10. STABILITY AND REACTIVITY

Chemical Stability: This product is stable for 2 years at ambient temperature and pressure, under normal storage and handling conditions. 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 temperatures above 49°C.

Incompatible Materials: Avoid contact with oxidizing agents and acids. Keep away from moisture, heat or flame. Compatible with most commonly used fungicides and insecticides, used at recommended rates. Always perform a compatibility test before using with other products. Do not physically mix concentrate directly with other pesticide concentrates, always dilute first.

Hazardous Decomposition Products: Hydrogen sulphide, carbon disulphide, carbon oxides, sulphur oxides and nitrogen oxides form on heating.

During processing, dust may form explosive mixture in air. Decomposition by contact with water may generate vapours, which can be ignited by heat or open flame.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY: Formulated product.

Based on experimental data.

Oral LD₅₀ (24 h) rat >2000 mg/kg.

Dermal LD₅₀ (24 h) rat >2000 mg/kg.

Inhalation LC₅₀ (4 h) rat >4.97 mg/ℓ.

Skin Irritation/Corrosion: Non-irritant to skin.

Eye Irritation/Corrosion: Causes eye irritation.

Skin Sensitization: May cause an allergic skin reaction.

Respiratory Sensitization: Not available.

Reproductive cell mutagenicity: Not available.

Carcinogenicity: Not available.

Reproductive toxicity: Suspected of damaging the unborn child.

Specific target organ toxicity – single exposure: Not available.

Specific target organ toxicity – repeated exposure: Not available.

Aspiration hazard: Not available.

Chronic Effects: Not available.

POTENTIAL ADVERSE EFFECTS:

Inhalation: Harmful in inhaled.

Skin contact: Non-irritant to skin.

Eye contact: Causes irritation to eyes.

Ingestion: May be harmful if swallowed.

12. ECOLOGICAL INFORMATION

ECOTOXICITY DATA: Based on the active ingredient.

Mancozeb

Fish:

LC₅₀ (96 h) Rainbow trout 1.0 mg/ℓ

Bluegill sunfish	>3.6 mg/ℓ.
NOEC (34 d, early life stage)	Fathead minnows 0.022 mg/ℓ.
Extended growth NOEC (14 d)	Rainbow trout 0.66 mg/ℓ.
Daphnia:	
EC ₅₀ (48 h, flow-through)	3.8 mg/ℓ.
Algae:	
EC ₅₀ (120 h, cell density)	<i>Selenastrum capricornutum</i> 0.044 mg/ℓ.
Birds:	
Acute oral LD ₅₀ (10 d)	Mallard ducks >5500 mg/kg. Japanese quail 5500 mg/kg. English sparrows >1290 mg/kg. European starlings >2400 mg/kg.
Acute dietary LC ₅₀ (8 d)	Bobwhite quail & mallard ducks >5200 mg/kg diet
Chronic reproduction NOEL	Mallard ducks 125 mg/kg diet. Bobwhite quail 300 mg/kg diet.
Bees:	
(LD ₅₀ , mg/bee)	(oral) >209 mg/bee. (contact) >400 mg/bee.
Worms:	
LC ₅₀ (14 d)	<i>Eisenia foetida</i> >1000 mg/kg soil;
LC ₅₀ (56 d) reproduction NOEC	<i>Eisenia foetida</i> 20 mg/kg soil.
Plants: Extensively metabolised in plants, forming ethylenethiourea, ethylenethiuram monosulfide, ethylenethiuram disulphide and sulphur as transitory intermediates. Terminal metabolites are natural products, especially those derived from glycine.	
ENVIRONMENTAL EFFECTS:	
Animal: Poorly absorbed and rapidly excreted in animals. The spectrum of metabolites produced was similar in laboratory and farm animals, pointing to two common metabolic pathways, which both lead ultimately to the formation of glycine and to incorporation of the metabolites into natural products.	
Persistence and degradability: Mancozeb breaks down rapidly in soil, sediment and water; terminal metabolites are natural products and with mineralisation to carbon dioxide.	
Bio-accumulative Potential: It does not bio-accumulate.	
Mobility in soil: Not determined.	
Other adverse effects: Not determined.	

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13. DISPOSAL CONSIDERATIONS

Waste: Open dumping or burning of this pesticide is prohibited. Waste resulting from the use of this product cannot be reused or re-processed. Never pour untreated waste or surplus product into public sewers or where there is any danger of run-off or seepage into water systems. Do not contaminate rivers, dams or any other water sources with this product or used containers/bags. Comply with local legislation applying to waste disposal. The product containers/bags may be taken to a registered waste disposal site or incineration plant.

Container: Emptied containers/bags retain dust and product residues. Do not re-use the empty container/bag for any other purpose. Empty containers by inverting the container over the spray or mixing tank. Thereafter, rinse the container three times with a volume of water equal to a minimum of one third of that of the container. Destroy the container by perforating and flattening and dispose of through an approved waste dumpsite, incineration plant or recycling company. Observe all labelled safeguards until container is destroyed.

14. TRANSPORT INFORMATION

UN Number: 3077
Road Transport ADR/IRD:
 Class: 9
 Packaging group: III
 UN Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s., (Mancozeb 800 g/kg)

Maritime Transport IMDG/IMO:
 Class: 9
 Packaging group: III
 UN Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s., (Mancozeb 800 g/kg)

Marine Pollutant (Y/N): YES
Air transport IATA/ICAO:
 Class: 9
 Packaging group: III
 UN Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s., (Mancozeb 800 g/kg)

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: Packed in 200, 250 & 500 g; 1, 2, 5, 6, 10, 20, 25 and 50 kg plastic containers and 3-ply paper bags. Labelled according to South African regulations and guidelines.

Additional H-statement (s) (formulants)

H302: Harmful if swallowed.

H312: Harmful in contact with skin.

H314: Causes severe skin burns and eye damage.

H318: Causes serious eye damage.

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

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For detailed information on revisions, contact the Registration holder.