SCOPE 250 EC

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: **SCOPE 250 EC**
Other identifier: **Difenoconazole 250 EC**
Recommended use: Fungicide
Restrictions on use: Agriculture

Supplier: **Universal Crop Protection (Pty) Ltd.**
Co. Reg. No.: 1983/008184/07
65 Botes Road, Glen Marais
Kempton Park, 1619, South Africa
Telephone: (011) 396 2233
Fax: (011) 396 4666
Website: www.villacrop.co.za

Emergency telephone numbers:
24 Hr Transport / Spill emergency no:
(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

2. HAZARDS IDENTIFICATION

UN GHS, Regulation EC 1272/2008 [EU-GHS/CLP] EU & SANS 10234:2008		
Hazard classes	**Hazard categories**	**H-statements**
Health		
Aspiration toxicity	Asp. Tox 1	H304
Skin irritation	Skin Irrit. 2	H315
Eye	Eye Dam. 1	H318
Inhalation	Acute Tox. 4	H332
Environment		
Aquatic acute	Aquatic acute 1	H400
Aquatic chronic	Aquatic chronic 1	H410

The most important adverse effects:
Physiochemical effects: None known
Human health effects:
May be fatal if swallowed and enters airways (Asp. Tox 1).
Causes skin irritation (Skin Irrit. 2).
Causes serious eye damage (Eye Dam. 1).
Harmful if inhaled (Acute Tox. 4).

Label elements:

Signal word: Danger.
Hazard statements:
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H318: Causes serious eye damage.
H332: Harmful if inhaled.
H400: Very toxic to aquatic life.
H410: Very toxic to aquatic life with long lasting effects.
Precautionary statements:
P261: Avoid breathing dust, fume, gas, mists, vapours, or spray.
P264: Wash hands and face thoroughly after handling.
P264+P265: Wash hands thoroughly after handling. Do not touch eyes.
P271: Use only outdoors or in a well-ventilated area.
P273: Avoid release to the environment.
P280: Wear impervious rubber gloves and boots, protective clothing and chemical safety goggles.
P301+P316: IF SWALLOWED: Get emergency medical help immediately.
P302+P352: IF ON SKIN: Wash with plenty of water and non-abrasive soap.
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P354+P338: IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P317: Get medical help.
P331: Do NOT induce vomiting.
P332+P317: If skin irritation occurs: get medical help.
P362+P364: Take off contaminated clothing and wash it before reuse.
P391: Collect spillage.
P405: Store locked up.
P501: Dispose of contents/container in accordance with local regulations.

Other hazards:
None known.
Toxicity:
Classification according to GHS: Category 4.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance / Mixture: Mixture
Composition:

Chemical name	**CAS**	**Conc. (m/v %)**	**Classification EC 1272/2008**
Difenoconazole	119446-68-3	25 %	Acute Tox.4 (H302) Eye Irrit.2 (H319) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
Shellsol – Trisol 150 AB	64742-94-5	< 70 %	Asp. Tox 1 (H304)

Emulson TS 200 (CY8)	99734-09-5	< 5 %	Aquatic Chronic 3 (H412)
Emulson AG/CAL/70	26264-06-2	< 5 %	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Dam.1 (H318) Aquatic Chronic 4 (H413)
Emulson AG/ISD	78330-20-8	< 5 %	Acute Tox.4 (H302) 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. Immediately consult a doctor if you feel unwell.
Inhalation: Remove person from contaminated area to fresh air and assist breathing as needed. Seek medical attention.
Skin: Remove contaminated clothing and shoes. Gently wipe off excess chemical. Wash skin gently and thoroughly with water and non-abrasive soap. Obtain medical attention if irritation persists.
Eyes: Flush eyes with clean water for at least 15 – 20 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 centre for treatment advice. **Do not induce vomiting.** Do not give anything by mouth. If the person is alert, rinse mouth thoroughly with water.
Anticipated acute effects:
Harmful if inhaled.
Causes skin irritation.
Causes serious eye damage.
Anticipated delayed effects: May be fatal if swallowed and enters airways.
Most important symptoms / effects: None known.
Advice to physician: Treat symptomatically and supportively. No specific antidote known. The product contains solvent that may cause chemical pneumonitis if aspirated into lungs. If ingested perform gastric lavage and administer activated charcoal.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Extinguish small fires with carbon dioxide, dry powder, halon, or alcohol-resistant foam. Water spray or fog can be used for larger fires or cooling of unaffected stock, but avoid coming into contact with the product. Use as little water as possible.
Unsuitable Extinguishing Media: High volume water jet. Use a water jet only to cool heated containers. Use as little water as possible.
Specific hazards: Fire may produce irritating or poisonous vapours (toxic oxides of nitrogen and corrosive bromine), mists or other products of combustion.
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. Remain upwind of fire. Avoid inhaling hazardous vapours and fumes from burning materials. Remove 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 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 protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Avoid contact with eyes and skin. Do not breathe in spray mist or fumes / vapours. 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. This product is classified as very toxic to aquatic organisms with long lasting effects in the aquatic environment. Any spillages or uncontrolled discharges into watercourses should be reported immediately to the police and the Department of Water / Environmental Affairs.
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, earth or other appropriate material. Vacuum, scoop, or sweep up material and place the material into a clean, dry, sealable container. Label containers with the contents and dispose of according to local regulations. Do not place spilled material back in original container. 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: Harmful if inhaled. Avoid contact with eyes and skin. Ensure adequate ventilation during handling and use. Do not handle broken packages without protective equipment. Immediately clean up spills that occur during handling. Keep containers 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 under lock and key and 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 excess heat. Not to be stored 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: Fluorinated plastic containers.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Permissible concentration

Components	Exposure limits	Type of exposure limit	Source
Naphthalene $C_{10}H_8$	10 ppm 50 mg/m^3	TWA OEL-RL	*"Hazardous Chemical Substances Regulations, 1995"*

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.
Hand Protection: The use of chemically protective impervious gloves is recommended to prevent against skin contact.
Eye Protection: Use a face shield musk or chemical safety goggles to prevent against eye contact. Contact lenses are not protective eye devices.
Skin and Body Protection: Employees must wear appropriate protective impervious clothing, coveralls, rubber boots, hat, and equipment to prevent repeated or prolonged skin contact when working with the pesticide. Do not wear leather clothing.
Emergency eyewash: Where there is any possibility that an employee's eyes may be exposed to this substance, the employer should provide an eye wash fountain or appropriate alternative within the immediate work area for emergency use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Amber liquid.
Odour: Aromatic.
Odour threshold: Not available.
pH: 7.4
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.
Density / Relative density: 1.01 g/mℓ
Solubility: Emulsifies in water.
n-octanol / water partition coefficient: K_{OW} logP = 4.4 (25ºC) (data for technical material).
Auto-ignition temperature: Not available.
Decomposition temperature: Not available.
Viscosity: Not available.

10. STABILITY AND REACTIVITY

Chemical stability: The product is stable for two 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: Protect from sunlight, open flame, and sources of heat.
Incompatible materials: Avoid contact with strong bases.
Hazardous decomposition products: Fire may produce harmful combustion products, which are toxic and irritating.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY: Calculated.
Oral LD_{50} (24h) >5300 mg/kg (rats)
Dermal LD_{50} >7600 mg/kg (rabbits)
Inhalation LC_{50} (4h) >2.5 mg/ℓ (rats)

Skin Irritation: Causes skin irritation.
Eye Damage: Causes serious eye damage.
Skin Sensitization: Not classified.
Respiratory Sensitization: Not classified.
Reproductive cell mutagenicity: Not classified.
Carcinogenicity: Not classified.
Reproductive toxicity: Not classified.
Specific target organ toxicity – single exposure: Not classified.
Specific target organ toxicity – repeated exposure: Not classified.
Aspiration hazard: May be fatal if swallowed and enters airways.
Chronic Effects: None known.
POTENTIAL ADVERSE EFFECTS:
Inhalation: Harmful if inhaled.
Eyes: Due to inerts, this product can cause serious eye damage.
Skin: Due to inerts, this product can cause skin irritation.
Ingestion: If large amounts are swallowed and aspiration of the solvent into the lungs occurs, chemical pneumonitis may develop. Small amounts of product aspirated into the respiratory system during ingestion or vomiting, may cause mild to severe pulmonary injury.

12. ECOLOGICAL INFORMATION

This product is considered a marine pollutant.

ECOTOXICITY DATA: Difenoconazole.

Fish:		
LC_{50} (96 h)	Rainbow trout	1.1 mg/ℓ
	Bluegill sunfish	1.2 mg/ℓ
	Sheepshead minnows	1.1 mg/ℓ
Daphnia:		
EC_{50} (48 h)		0.77 mg/ℓ
Algae:		
EC_{50} (72 h)	*Scenedesmus subspicatus*	0.03 mg/ℓ
Birds:		
Acute oral LD_{50} (9-11d)	Mallard ducks	>2150 mg/kg
	Japanese quail	>2000 mg/kg
Dietary LC_{50} (5d)	Mallard ducks	>5000 mg/kg diet
	Bobwhite quail	>4760 mg/kg diet
Bees:		
LD_{50} contact		>100 µg/bee
LD_{50} oral		>187 µg/bee
Worms:		
LC_{50} (14d)	*Eisenia fetida*	>610 mg/kg soil

Other aquatic spp.

LC_{50} (96 h)	Mysid shrimps,	0.15 mg/ℓ
EC_{50} (96 h)	Eastern oysters,	0.3 mg/ℓ
EC_{50} (7 d)	Lemna gibba	1.9 mg/ℓ

ENVIRONMENTAL EFFECTS.
Plants: Two routes of metabolism: one by a triazole route to triazolylalanine and triazolylacetic acid; the other by hydroxylation of the phenyl ring, followed by conjugation.
Persistence and degradability: Soil dissipation rate is slow and dependent on application rate; DT_{50} 3 mo-1 y. Hydrolytically stable at pH 5-9 (25°C). Undergoes indirect photolysis in (sterile)n natural water; DT_{50} 4.6 d. In standard lab. Water-sediment systems (n = 2) in the dark, rapid dissipation from the water, DT_{50} 1-3 d, but slow degradation in whole system, DT_{50} c 8 mo.
Bio-accumulative potential: Not determined.
Mobility in soil: Practically immobile in soil, strong adsorbtion to soil particles (mean adsorbtion coefficient normalised to organic carbon, $K_{oc,ads}$ 4.545 mℓ/g), low potential to leach below top soil layer.
Other adverse effects: Not determined.

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 the product or used containers. Comply with local legislation applying to waste disposal. The product may be taken to a registered waste disposal site or incineration plant.
Container: TRIPLE RINSE THE EMPTY CONTAINER AS FOLLOWS: Invert the empty container over the spray or mixing tank and drain for at least 30 seconds after the flow has slowed down to dripping. Thereafter rinse the empty container three times in succession with one quarter of the container volume fresh water and decant the rinsate into the spray or mixing tank. Puncture the triple rinsed container and dispose of via an approved collector or recycler (www.croplife.co.za). Do not bury, burn or donate the container to any other parties that may use it as a container for food or beverages.

14. TRANSPORT INFORMATION

UN Number: 3082
Road Transport ADR / ORD:

Class:	9
Packaging group:	III
UN Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

(**Difenoconazole 250 g/ℓ**)

Maritime Transport IMDG / IMO:
Class: 9
Packaging group: III
UN Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(**Difenoconazole 250 g/ℓ**)

Marine pollutant (Y/N): **Yes.**
Air Transport IATA / ICAO:
Class: 9
Packaging group: III
UN Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(**Difenoconazole 250 g/ℓ**)

Special / Environmental Precautions: Wedge drums tightly to avoid movement.
Transport in bulk: Refer to MARPOL 73/78, Annex II and the IBC code.

15. REGULATORY INFORMATION

Safety, health and environmental regulations / legislation for the mixture:
OHSA 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 1, 5, 10, 20 and 25 litres fluorinated plastic containers labelled according to South African regulations and guidelines.
Other hazard statements, abbreviations and explanations:
H302: Harmful if swallowed.
H319: Causes serious eye irritation.
H412: Harmful to aquatic life with long lasting effects.
H413: May cause long lasting harmful effects to aquatic life.
IATA: International Air Transport Association.
IBC: International Bulk Chemical.
ICAO: International Civil Aviation Organization.
IMDG: International Maritime Dangerous Goods
IMO: International Maritime Organization.
LD_{50} value: The median lethal dose or the amount of a toxic agent that is sufficient to kill 50 percent of a population within a certain period of time.
OEL/RL: Occupational exposure limit-recommended limit.
TWA: Time-weighted average – The average exposure over a specified period, usually a nominal eight hours.
ST/STEL: Short-term exposure limits.
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: September 2019
Reviewed: August 2024
Revision no.: (5)
Next revision date: August 2029

For detailed information on revisions, contact the Registration holder.