

VILLA CERATO 250 EC

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: CERATO 250 EC
Other identifier: Pyraclostrobin 250 EC
Recommended use: Fungicide
Restrictions on use: Agriculture

Supplier: Villa Crop Protection (Pty) Ltd.
 Co. Reg. No.: 1992/002474/07
 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:
 (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 Hazard	Aspiration toxicity 1	H304
Dermal	Skin Irritation 2	H315
Inhalation	Acute Toxicity 3	H331
Reproductive Toxicity	Reproductive Toxicity 1B	H360D
Environment		
Aquatic acute	Aquatic Acute 1	H400
Aquatic chronic	Aquatic Chronic 1	H410

The most important adverse effects:
Physicochemical effects: None known
Human health effects:
 May be fatal if swallowed and enters airways.
 Causes skin irritation.
 Toxic if inhaled.
 May damage fertility or the unborn child.
Label elements:



Signal word: Danger

Hazard statements:

H304: May be fatal if swallowed and enters airways.
 H315: Causes skin irritation.
 H331: Toxic if inhaled.
 H360D: May damage fertility or the unborn child.
 H400: Very toxic to aquatic life.
 H410: Very toxic to aquatic life with long lasting effects.

Precautionary statements:

P203: Obtain, read and follow all safety instructions before use.
 P261: Avoid breathing fumes, mists, vapours or spray.
 P264: Wash hands and face thoroughly after handling.
 P271: Use only outdoors or in well-ventilated area.
 P273: Avoid release to the environment.
 P280: Wear impervious rubber gloves and boots, protective clothing and chemical safety goggles.
 P301+P304+P316: IF SWALLOWED OR INHALED: 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.
 P318: IF exposed or concerned, get medical advice.
 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.
 P403+P233: Store in a well-ventilated place. Keep container tightly closed.
 P405: Store locked up.
 P501: Dispose of contents/container in accordance with local regulations.

Special labelling of certain mixtures: None known.

Other hazards: None known.

Toxicity:

Classification according to GHS: Category 3

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture

Composition:

Chemical Name	CAS	Conc. (m/v %)	Classification EC 1272/2008
Pyraclostrobin	175013-18-0	25%	Acute toxicity 3 (H331) Skin Irritation 2 (H315) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
N-Methyl-2-pyrrolidone	872-50-4	< 5%	Skin Irritation 2 (H315)

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			Eye Irritation 2A (H319) STOT SE 3 (H335) Reproductive Toxicity 1B (H360D)
Heavy aromatic solvent, naphtha	64742-94-5	< 60%	Aspiration Toxicity 1 (H304)
Liquid petroleum	8012-95-1	<15%	Aspiration Toxicity 1 (H304)

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 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.

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 **immediately consult a doctor.**

Inhalation: If vapours or mists have been inhaled, immediately remove source of contamination if safe to do so or move victim to fresh air. The patient should be kept under observation. **Seek medical advice immediately.**

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 minutes. Lift eyelids to facilitate irrigation. If present, remove contact lenses after 5 minutes and continue rinsing. If irritation persists, get medical attention.

Ingestion: Have victim rinse mouth thoroughly with water. **Do not induce vomiting, due to the aromatic solvent. Seek medical advice immediately.** If the person is alert and respiration is not depressed, give large quantity of water to drink. Never give anything by mouth to an unconscious person.

Anticipated acute effects:

May be fatal if swallowed and enters airways.

Causes skin irritation.

Toxic if inhaled.

Anticipated delayed effects: May damage fertility or the unborn child.

Most important symptoms/effects: None known.

Advice to physician: Treat symptomatically and supportively. No specific antidote known.

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: High volume water jet. Use a water jet only to cool heated containers

Specific hazards: May release irritating fumes upon combustion such as oxides of carbon and nitrogen. Hazardous products arising from combustion – Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Toxic if inhaled. Do not breathe in spray mist or vapours. Avoid contact with skin. 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 to be very toxic to aquatic organisms and may cause long-term adverse 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, binder 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: Do not breathe fumes, mist, vapours, or spray. Avoid contact with skin. Ensure adequate ventilation during handling and use. Do not handle broken containers without protective equipment. Immediately clean up spills that occur during handling.

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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 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
Liquid petroleum	5 mg/m ³	8-hour TWA (STEL)	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 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, a face shield or mask will be sufficient. 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 gloves is recommended to prevent against skin contact.

Eye Protection: The use of chemical safety goggles is recommended to prevent against eye contact. Contact lenses are not protective eye devices.

Skin and Body Protection: Employee must wear appropriate protective clothing; rubber boots, hat and equipment to prevent repeated or prolonged skin contact with this substance. 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: Dark yellow liquid, Emusifiable concentrate.

Odour: Faint odour, aromatic liquid

pH (1% aqueous dilution): 6.2 (g/l @ 20°C)

Melting point: Not available.

Freezing Point: Not available.

Boiling Point: Not available.

Flash Point: > 93 °C.

Flammability: Non-Flammable

Upper/lower explosion limits: Not available.

Vapour Pressure (mm Hg): 0.053 hPa

Relative Vapour Density: Not available.

Density/Relative density: 1.055 g/cm³ @ 20 °C.

Solubility: Emulsifies in water.

n-octanol/water partition coefficient: Not available.

Auto-ignition temperature: Not available.

Decomposition temperature: Not available.

Viscosity: 8.8 mPa (40°C) approx. 17.5 mPa.s (20°C)

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: Not expected, stable under recommended storage and handling conditions.

Conditions to Avoid: Avoid from heat, direct sunlight and sources of ignition.

Incompatible Materials: Strong oxidizers, strong bases, strong reducing agents.

Hazardous Decomposition Products: Alcohols. Carbon monoxide and carbon dioxide may form under burning conditions or with incomplete combustion.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

Calculated according to GHS

Oral LD₅₀ (24 h) rat: >16 000 mg/kg.

Dermal LD₅₀ (24 h) rat: >8 000 mg/kg.

Inhalation LC₅₀ (4 h) rat: >0.7 mg/l.

Skin Irritation: Causes skin irritation.

Eye Damage/Irritation: Not an irritant.

Skin Sensitization: Product is not a skin sensitizer.

Respiratory Sensitization: Not classified.

Reproductive cell mutagenicity: Not classified.

Carcinogenicity: Not classified.

Reproductive toxicity: May damage fertility or the unborn child.

Specific target organ toxicity – single exposure: Not classified.

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Specific target organ toxicity – repeated exposure: Not classified.

Aspiration hazard: May be fatal if swallowed and enters airways.

Chronic Effects (other targets e.g. developmental): Not available.

POTENTIAL ADVERSE EFFECTS:

Inhalation: Fatal if inhaled.

Skin contact: Causes skin irritation.

Eye contact: Not classified.

Ingestion: May be fatal if swallowed and enters airways.

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. Observe all labelled safeguards until container is destroyed.

12. ECOLOGICAL INFORMATION

This product is considered to be very toxic to aquatic organisms with long-term adverse effects in the aquatic environment.

ECOTOXICITY DATA:

Based on active ingredient

Fish:

LC₅₀ (96 h) Rainbow trout 0.006 mg/l.

Daphnia:

EC₅₀ (48 h) 0.016 mg/l.

Algae:

EC₅₀ (72 h) *Pseudokirchneriella subcapitata* 0.843 mg/l.
0.152 mg/l

Birds:

Acute oral LD₅₀ Bobwhite quail >2000 mg/kg.

Bees:

LD₅₀ contact >100 µg/bee.

LD₅₀ oral >73.1 µg/bee.

Worms:

LC₅₀ >566 mg/kg soil

Plants: Not available

ENVIRONMENTAL EFFECTS:

Persistence and degradability: DT₅₀ in field 8 – 37 days.

Bio-accumulative Potential: Rapidly absorbed and completely eliminated.

Mobility in soil: K_{oc} 6000 – 16000 ml/g.

Other adverse effects: Not determined

14. TRANSPORT INFORMATION

UN Number: 2902

Road Transport ADR/IRD:

Class: 6.1

Packaging group: II

UN Proper Shipping Name: PESTICIDE, LIQUID, TOXIC, N.O.S.

(Pyraclostrobin 250 g/l)

Maritime Transport IMDG/IMO:

Class: 6.1

Packaging group: II

UN Proper Shipping Name: PESTICIDE, LIQUID, TOXIC, N.O.S.

(Pyraclostrobin 250 g/l)

Marine Pollutant (Y/N): Yes, Considered a marine pollutant.

Air transport IATA/ICAO:

Class: 6.1

Packaging group: II

UN Proper Shipping Name: PESTICIDE, LIQUID, TOXIC, N.O.S.

(Pyraclostrobin 250 g/l)

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:

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

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: Emptied containers retain product residues. Do not re-use the empty container for any other purpose. Invert the empty container over the spray or mixing tank and

16. OTHER INFORMATION

Packaging: Packed in 250, 500 ml and 1, 5, 10 and 20 litres fluorinated plastic containers, labelled according to South African regulations and guidelines.

Additional H statements (formulants):

H319: Causes serious eye damage.

H335: May cause respiratory irritation.

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IATA: International Air Transport Association.
IBC: International Bulk Chemical.
ICAO: International Civil Aviation Organization.
IMDG: International Maritime Dangerous Goods
IMO: International Maritime Organization.
LD₅₀ 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: December 2017
Reviewed: June 2022
Revision no.: (3)
Next revision date: June 2027

For detailed information on revisions, contact the Registration holder.