

# VILLA CERATO 250 EC

# SAFETY DATA SHEET

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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

**Supplier:** Villa Crop Protection (Pty) Ltd.  
 PO Box 801,  
 Kempton Park, 1620, South Africa

**Telephone:** (011) 396 2233  
**Fax:** (011) 396 4666  
**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>		
Aspiration Hazard	Acute tox 1	H304
Oral	Acute Tox. 3	H301
Inhalation	Acute Tox 4	H332
Dermal	Acute Tox. 5 Skin Irrit. 2	H313 H315
Reproductive toxicity	Repr. 1B	H360D
Specific Organ Toxicity – Single Exposure	STOT SE 3	H335
<b>Environment</b>		
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.

Toxic if swallowed.  
 May cause respiratory irritation.  
 May damage the unborn child.

#### Label elements:



**Signal word:** Danger

#### Hazard statements:

H301: Toxic if swallowed.  
 H304: May be fatal if swallowed and enters airways.  
 H313: May be harmful in contact with skin.  
 H315: Causes skin irritation.  
 H332: Harmful if inhaled.  
 H335: May cause respiratory irritation.  
 H360D: May damage unborn child  
 H400: Very toxic to aquatic life.  
 H410: Very toxic to aquatic life with long lasting effects.

#### Precautionary statements:

P202: Do not handle until all safety precautions have been read and understood.  
 P261: Avoid breathing mist, vapours and spray.  
 P264: Wash skin and eyes thoroughly after handling.  
 P270: Do not eat, drink or smoke when using this product.  
 P271: Use only outdoors or in well-ventilated area.  
 P273: Avoid release to the environment.  
 P280: Wear impervious rubber gloves and chemical safety goggles.  
 P301/310: IF SWALLOWED: Immediately call a POISON CENTER.  
 P330: Rinse mouth  
 P302/352: IF ON SKIN: Wash with plenty of water and soap.  
 P331: Do NOT induce vomiting.  
 P332/313: If skin irritation occurs: Get medical attention.  
 P362/364: Take off contaminated clothing and wash it before reuse.  
 P305/351/338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.  
 P308/313: If exposed or concerned: Get medical attention.  
 P337/313: If eye irritation persists: Get medical attention.  
 P391: Collect spillage.  
 P403/233: Store in well-ventilated place. Keep container tightly closed.  
 P405: Store locked up.  
 P501: Dispose of contents/container in accordance with local regulations.

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## Special labelling of certain mixtures:

None known.

## Other hazards:

None known.

## Toxicity:

Classification according to GHS: Category 3

Classification according to WHO: Category II

Classification according to GPIC: Category U

Harmful if swallowed.

Harmful in contact with skin.

Causes skin irritation.

Harmful if inhaled.

**Anticipated delayed effects:** None known.

**Most important symptoms/effects:** None known.

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

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

**Substance/Mixture:** Mixture

### Composition:

Chemical Name	CAS	Conc. (m/v %)	Classification EC 1272/2008
Pyroclostrobin	17501 3-18-0	20%	Acute tox 3(H331) Skin Irrit. 2 (H315) STOT SE 3 (H335) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
N-Methyl-2 pyrrolidone	872- 50-4	< 10%	Skin Irrit. 2 (H315) Eye Irrit 2 (H319) STOT SE 3 (H335) Repr 1B (H360D)
Liquid hydrocarbon	64742- 94-5	< 75%	Acute Tox 1 (H304)

## 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. Hazard products arising from combustion – Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

**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:**

## 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** Avoid contact with eyes. Do not breathe in spray mist or 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 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.)

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**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:** inhaled. Avoid contact with eyes and skin. 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 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
N-Methyl-2-pyrrolidone	100 ppm	400 mg/m <sup>3</sup> (TWA)	OEL

### 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 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/cm<sup>3</sup> @ 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,

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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:

**Based on experimental data**

**Oral LD<sub>50</sub>** (24 h) rat: 200 – 500 mg/kg.

**Dermal LD<sub>50</sub>** (24 h) rat: > 4000 mg/kg.

**Inhalation LC<sub>50</sub>** (4 h) rat: 3.5 mg/l.

**Skin Irritation:** May cause mild but temporary skin irritation. Animal tests showed the product to be moderately irritating.

**Eye Damage/Irritation:** May cause mild but temporary eye irritation. Animal tests showed the product to be moderately irritating.

**Skin Sensitization:** Product is not a skin sensitizer.

**Respiratory Sensitization:** Not available.

**Reproductive cell mutagenicity:** Not available.

**Carcinogenicity:** Not available.

**Reproductive toxicity:** May damage the unborn child.

**Specific target organ toxicity – single exposure:** May cause respiratory irritation.

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

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

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

### POTENTIAL ADVERSE EFFECTS:

**Inhalation:** May be harmful if inhaled.

**Skin contact:** May be harmful in contact with skin.

**Eye contact:** Not available.

**Ingestion:** May be harmful if swallowed.

## 12. ECOLOGICAL INFORMATION

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

### ECOTOXICITY DATA:

#### Fish:

LC<sub>50</sub> (96 h) Rainbow trout 0.006 mg/l.

#### Daphnia:

EC<sub>50</sub> (48 h)

0.016 mg/l.

#### Algae:

EC<sub>50</sub> (72 h) *Pseudokirchneriella subcapitata* 0.843 mg/l.  
0.152 mg/l.

#### Birds:

Acute oral LD<sub>50</sub> Bobwhite quail >2000 mg/kg.

#### Bees:

LD<sub>50</sub> contact >100 µg/bee.

LD<sub>50</sub> oral >73.1 µg/bee.

#### Worms:

LC<sub>50</sub> >566 mg/kg soil

**Plants:** Not available

### 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:** 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. Triple rinse empty containers by inverting the empty container over the spray or mixing tank and allow draining for at least 30 seconds after the flow has slowed down to a drip. Thereafter, rinse the container three times with a volume of water equal to a third of that of the container. Add the rinsing's to the contents of the spray tank before destroying the container in the prescribed manner. 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:** 2902

**Road Transport ADR/IRD:**

Class: 6.1

Packaging group: III

UN Proper Shipping Name: Pesticide, Liquid, Toxic, N.O.S.

(Pyraclostrobin 250 g/l)

**Maritime Transport IMDG/IMO:**

Class: 6.1

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Packaging group: III  
 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: III  
 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.

**Reviewed:** March 2019  
**Revision no.:** (3)  
**Next revision:** March 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:** 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.

**H331:** Toxic if inhaled.

**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.

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**Compiled:** December 2017