



Fungicide

CERATO 250 EC

Reg. No. L 9336 Act No. 36 of 1947

4: 30/3/2022 – Nov2022

An emulsifiable concentrate contact and translaminar fungicide for the control of Black spot on citrus and Black shank on flue cured tobacco.

ACTIVE INGREDIENT

pyraclostrobin (strobilurin) 250 g/l

GROUP

11

FUNGICIDE



DANGER

Hazard Statements:

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

Precautionary Statements:

Avoid breathing mists, vapours or spray.
Do NOT induce vomiting.
Avoid release to the environment.



UN Number: 2902

Registration holder: VILLA CROP PROTECTION (PTY) LTD.
Co. Reg. No. 1992/002474/07
PO Box 10413, Aston Manor, 1630
Tel. (011) 396 2233
Website: www.villacrop.co.za

24 HR EMERGENCY NUMBERS:
Griffon Poison Centre: +27 82 446 8946
24 HR Transport / Spill Emergency no: (Hazcall24) +27 86 044 4411
(Client: Villa Crop Protection)

REFER TO DETAILS AS PRINTED ON CONTAINER / BAG

DIRECTIONS FOR USE ENCLOSED

Batch Number:
Date of Manufacture:

CERATO 250 EC

Reg. No. L 9336 Act No. 36 of 1947
FRAC FUNGICIDE GROUP CODE: 11

ACTIVE INGREDIENT:

pyraclostrobin (strobilurin)250 g/l

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WARNINGS**Withholding periods:**

Minimum number of days between the last application and harvest:	
Citrus: Oranges, Grape fruit, Lemons Limes, Tangelos, Pomelos and all Mandarin varieties unless otherwise stated	45 days
Tobacco	83 days

IN THE CASE OF CROPS INTENDED FOR EXPORT, CONFIRM WITHHOLDING PERIODS WITH THE RELEVANT EXPORT ORGANISATION. IF THIS PRODUCT IS USED ACCORDING TO THE RECOMMENDATIONS ON THIS LABEL, LOCAL MRL VALUES WILL NOT BE EXCEEDED. HOWEVER, VILLA CROP PROTECTION (PTY) LTD. CANNOT ACCEPT RESPONSIBILITY FOR EXPORTED CROPS EXCEEDING THE IMPORT TOLERANCES OF OTHER COUNTRIES.

Hazard statements:

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

- Handle with care.
- Store in a cool, dry place away from food, feeds, fertilizers and other agricultural remedies.
- Keep out of reach of children, animals and uninformed persons.
- Re-entry: Do not enter treated area for 1 day after application unless wearing protective clothing.
- **In case of poisoning, call a doctor and make this label available to him / her.**

Although this remedy has been extensively tested under a large variety of conditions, the registration holder does not warrant that it will be efficacious under all conditions, because the action and effect thereof may be affected by factors such as abnormal soil, climatic and storage conditions, quality of dilution water, compatibility with other substances not indicated on the label and the occurrence of resistance of the disease to the remedy concerned, as well as by the method, time and accuracy of application. The registration holder further does not accept responsibility for damage to crops, vegetation, the environment or harm to man or animal or for lack of performance of the remedy concerned, due to failure of the user to follow the label instructions or to the occurrence of conditions, which could not have been foreseen in terms of the registration. Consult the supplier in event of any uncertainty.

PRECAUTIONS**Precautionary statements:**

Obtain, read and follow all safety instructions before use.
Avoid breathing fumes, mists, vapours or spray.
Wash hands and face thoroughly after handling.
Use only outdoors or in well-ventilated area.
Avoid release to the environment.
Wear impervious rubber gloves and boots, protective clothing and chemical safety goggles.
IF SWALLOWED OR INHALED: Get emergency medical help immediately.
IF ON SKIN: Wash with plenty of water and non-abrasive soap.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF exposed or concerned, get medical advice.

Do NOT induce vomiting.
If skin irritation occurs: get medical help.
Take off contaminated clothing and wash it before reuse.
Collect spillage.
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Dispose of contents/container in accordance with local regulations.

- Do not enter treated areas until the sprayed solution has dried.
- Do not eat, drink or smoke whilst mixing, applying the product or before washing hands and face or change of clothing.
- Avoid drift of spray onto other crops, grazing, rivers, dams and areas not under treatment.
- Clean the applicator with a 1 % household ammonia solution before using for other pesticides. Let the solution stand for several hours, preferably overnight, in the spray equipment. Rinse at least twice. This applicator should not be used for applying chemicals other than pesticides.
- Thoroughly clean the spraying equipment directly after use and dispose of wash water where it will not contaminate food, grazing, boreholes, rivers or dams.
- Containers and packages must be completely emptied before being disposed of. Shake out thoroughly into the applicator and destroy the empty container thereafter in the described manner.
- Invert the empty container over the spray or mixing tank to make sure the container is empty before destroying the 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 (3) 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.
- **Never** re-use the empty container for any other purpose.
- Prevent contamination of food, feeds, drinking water and eating utensils.

Relevant hazardous components	
Pyraclostrobin	250 g/l
N-Methyl-2-pyrrolidone	< 60 g/l
Heavy aromatic solvent, naphtha	< 600 g/l
Liquid petroleum	< 150 g/l

FIRST AID TREATMENT

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 contact:** 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.
- **Eye contact:** Flush eyes with clean water for at least 15 minutes. Lift eyelids to facilitate irrigation. If present, remove contact lenses after five (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.

NOTE TO PHYSICIAN

Treat symptomatically and supportively. No specific antidote known.

RESISTANCE WARNING

CERATO 250 EC is a group code 11 fungicide. Any fungus population may contain individuals naturally resistant to **CERATO 250 EC** and other group code 11 fungicides. The resistant individuals can eventually dominate the fungus population if these fungicides are used repeatedly and exclusively in programs. These resistant fungi may not be controlled by **CERATO 250 EC** or any other group code 11 fungicides.

To delay fungicide resistance:

- avoid exclusive repeated use of fungicides from the same fungicide group code. Alternate with products from different fungicide group codes,
- integrate other control methods (chemical, cultural, biological) into disease control programmes.

For specific information on resistance management contact the registration holder of this product.

Mode of Action:

CERATO 250 EC belongs to the strobilurin chemical group of fungicides, and the mode of action is described as “quinone outside inhibition (QoI)” thereby affecting mitochondrial electron transport. It has protective and curative activity (**up to 3 days**) and translaminar mobility. This fungicide also causes physiological effects like delayed senescence, greener leaves, better tolerance against biotic and abiotic stress as well as more efficient use of water and nitrogen.

USE RESTRICTIONS

- **CERATO 250 EC** must not be used on old neglected citrus trees, as they are extremely prone to fungicidal resistance.
- Do not apply **CERATO 250 EC** on non-tolerant Black shank tobacco cultivars.
- **CERATO 250 EC** may only be applied on flue cured tobacco.

DIRECTIONS FOR USE: Use only as directed.**Compatibility:**

- **CERATO 250 EC** is compatible with **Multizeb 455 SC, Villa Unizeb 750 WDG, Unizeb 480 SC, Villa Unizeb 800 WP, Copper oxychloride 850 WP, KOCIDE® 2000 (L 7805) (Copper hydroxide) and Vimethozeb 690 WP** and light to medium narrow range mineral oils.
- If tank mixtures with other products are made, first confirm compatibility by mixing small volumes of the products in the correct ratio with the appropriate quantity of water.
- Water quality and formulation properties of other products may influence compatibility.

Mixing instructions:

- Half fill the spray tank with clean water and ensure agitation.
- Pre-mix the required amount of **Mancozeb** or **Copper** containing product, in at least 10 litres of water and add it to the spray tank.
- Pre-mix the required volume of **CERATO 250 EC** in at least 10 litres of water before adding to the spray tank.
- Citrus only: Finally add the mineral oil to the mixture. Fill the spray tank with water to the final volume required while maintaining agitation, to ensure thorough mixing of the spray mixture before spraying commences.
- Maintain agitation while spraying.
- Prepared spray mixture must not be left in the spray tank for any length of time, e.g. overnight.

CROP RECOMMENDATIONS**Citrus:**

CERATO 250 EC must always be applied in a programme application with a **Mancozeb** or a **Copper** containing product in order to achieve a responsible resistance management programme. Accurate timing of treatments is essential to achieve efficient control.

- **CERATO 250 EC** treatments must be applied as a preventive treatment with limited curative abilities.
- Apply a **Mancozeb** or a **Copper** containing product as a first treatment starting at fruit set (100 % petal drop), at the registered rate.
- Follow up with two (2) **CERATO 250 EC** applications, as recommended below. Complete the spray programme with a further treatment of at least one **Mancozeb** or **Copper** containing product application, as recommended.

- Refer to the respective **Mancozeb, Copper** containing products and narrow range mineral oil product labels for the respective recommendations and application rates.
- **Lemons for export crop and local oil production:** All bearing and out of season fruit, should be removed from the trees before starting the programme application. Do not deviate from the recommended spray programme starting at fruit set (100 % petal drop).

Tobacco:

- Apply **CERATO 250 EC** in a spray programme in order to optimise the fungicidal efficacy of the product and to ensure sustainable use of strobilurins. Apply the programme as follows:
 - first application of **CERATO 250 EC** at transplanting,
 - follow up four (4) weeks later with **Vimethozeb 690 WP**.
- Only apply **CERATO 250 EC** on flue cured tobacco.

Application instructions:

All spray operations must be performed with suitable equipment that is in good working order and correctly calibrated to give the desired coverage for that particular method of application.

APPLICATION RATES

Crop / Disease	Dosage rate	Remarks
<u>Tobacco</u> Black shank (<i>Phytophthora nicotianae</i>)	1.2 l CERATO 250 EC / 15000 plants	Refer to the “ CROP RECOMMENDATIONS ” above. <u>Application at transplanting:</u> Apply before transplanting of tobacco. Dilute 80 ml CERATO 250 EC in 100 litres water. Fill the planting hole with water and apply 100 ml of the mixture into the planting hole while still full with water. <u>Application 4 weeks after transplant:</u> Follow the CERATO 250 EC treatment up 28 days later with Vimethozeb 690 WP as per relevant label instructions.

Crop / Disease	Dosage rate	Remarks
<p>Citrus Oranges, Grapefruit, Lemons, Limes, Tangelos, Pomelos and all Mandarin varieties unless otherwise stated</p> <p>Black spot (<i>Guignardia citricarpa</i>)</p>	<p>200 g / 100 ℓ water Villa Unizeb 800 WP</p> <p>OR 200 g / 100 ℓ water Villa Unizeb 750 WDG</p> <p>OR 350 ml / 100 ℓ water Multizeb 455 SC</p> <p>OR 330 ml / 100 ℓ water Unizeb 480 SC</p>	<p>Refer to “CROP RECOMMENDATIONS” above.</p> <p>Apply one Mancozeb application at fruit set (100 % petal drop).</p>
	<p>10 ml CERATO 250 EC</p> <p>PLUS</p> <p>300 ml light to medium narrow range mineral oil / 100 ℓ water</p> <p>PLUS</p> <p>150 g / 100 ℓ water Villa Unizeb 800 WP</p> <p>OR 150 g / 100 ℓ water Villa Unizeb 750 WDG</p> <p>OR 260 ml / 100 ℓ water Multizeb 455 SC</p> <p>OR 250 ml / 100 ℓ water Unizeb 480 SC</p> <p>OR 150 g / 100 ℓ water Kocide® 2000</p>	<p>Apply CERATO 250 EC 21 to 25 days after the first Mancozeb application as a preventive treatment.</p> <p>Ensure good coverage of all fruit with a medium to full cover spray.</p> <p>Apply a second CERATO 250 EC application six (6) weeks later.</p>

Crop / Disease	Dosage rate	Remarks
(Continued) Citrus Oranges, Grapefruit, Lemons, Limes, Tangelos, Pomelos and all Mandarin varieties unless otherwise stated Black spot (<i>Guignardia citricarpa</i>)	200 g / 100 ℓ water Villa Unizeb 800 WP OR 200 g / 100 ℓ water Villa Unizeb 750 WDG OR 350 ml / 100 ℓ water Multizeb 455 SC OR 330 ml / 100 ℓ water Unizeb 480 SC	Apply Mancozeb six (6) weeks after the second CERATO 250 EC application. Repeat with a Mancozeb treatment 21 to 24 days later if an infection period occurs in February.
REMARKS		
<p>Copper oxychloride 850 WP product application as an alternative to Mancozeb or Kocide® 2000 in a CERATO 250 EC spray programme on citrus.</p> <ul style="list-style-type: none"> • As an alternative to Mancozeb or Kocide® 2000 (solo or in combination with CERATO 250 EC and mineral oil), Copper oxychloride 850 WP can be included in the programme application. • The Copper oxychloride 850 WP applications should be applied according to the registered rates (Refer to the necessary label recommendations). • In order to avoid/reduce the occurrence of Copper rind stippling and any lesion accentuation on fruit, Copper oxychloride 850 WP should be applied at least 60 days apart. Reduce the number of Copper oxychloride 850 WP applications to a maximum of 2 to 3 applications per season. 		

The following products mentioned in this label can be replaced with the following equivalent products:

- **VILLA UNIZEB 800 WP** (L 8056 / N-AR 1091) = **COZEB 800 WP** (L 7098) = **NEWZEB 800 WP** (L 8167) (**Mancozeb**),
- **VILLA UNIZEB 750 WDG** (L 8812) = **NEWZEB 750 WDG** (L 8811) = **COZEB 750 WDG** (L 8964) (**Mancozeb**),
- **MULTIZEB 455 SC** (L 9174) = **NEWZEB 455 SC** (L 9175) (**Mancozeb**),
- **UNIZEB 480 SC** (L 9179) = **NEWZEB 480 SC** (L 9178) (**Mancozeb**),
- **COPPER OXYCHLORIDE 850 WP** (L 6231 / N-AR 1879 / W 130952) = **COPPER OXYCHLORIDE 850 WP** (L 5809) and
- **VIMETHOZEB 690 WP** (L 7986 / N-AR 1296 / W1301400) = **DIMETHOZEB 690 WP** (L 7985) (**Dimetomorph + Mancozeb**).

COZEB 800 WP, NEWZEB 750 WDG, NEWZEB 455 SC, NEWZEB 480 SC, DIMETHOZEB 690 WP and **COPPER OXYCHLORIDE 850 WP** are registered products of **UNIVERSAL CROP PROTECTION (PTY) LTD.**

VILLA UNIZEB 800 WP, VILLA UNIZEB 750 WDG, MULTIZEB 455 SC, UNIZEB 480 SC, VIMETHOZEB 690 WP and **COPPER OXYCHLORIDE 850 WP** are registered products of **VILLA CROP PROTECTION (PTY) LTD.**

NEWZEB 800 WP and **COZEB 750 WDG** are registered products of **CROPASURE (PTY) LTD.**

KOCIDE® 2000 is a registered trademark of **KOCIDE LLC** now **COSACO**.