

A copper-containing suspension concentrate fungicide and bactericide for the control of diseases in crops as indicated.

'n Koperbevattende suspensiekonsentraat swamdoder en bakteriedoder vir die beheer van siektes in gewasse soos aangedui.

Distributed by:

**Makhro Home And Garden (Pty) Ltd**

Reg. Nr. 2014 / 283523 / 07

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MAKHRO HOME AND GARDEN (PTY) LTD

# COPSTAR 120 SC

Reg. No. L7026 – Act 36 of 1947

**FRAC FUNGICIDE GROUP CODE M1 FRAC SWAMDODER GROEPKODE**

**ACTIVE INGREDIENT / AKTIEWE BESTANDDEEL**

Copper Hydroxide  
(equivalent to 120 g/l metallic  
copper)

180 g / l

Koper Hidroksied  
(gelykstaande aan 120 g/l metaal  
koper)

Registered and Manufactured by: ROLFES AGRI (PTY) LTD

Reg. No. 1998/013411/07, P.O. Box 589, Silverton, 0127



HARMFUL  
SKADELIK



Yellow band

Geel band

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Office No: 021 981 4011

21 Viben Street, Brackenfell

Technical advise: 082 562 5330

Medical Emergency: 0861 555 777

## WARNINGS:

**Withholding periods:** Minimum number of days between last application and harvest:

• Apples	14 days	• Grapes	21 days
• Avocados	14 days	• Mangoes	14 days
• Beans	3 days	• Onions	14 days
• Citrus	14 days	• Peaches	14 days
• Coffee	14 days	• Potatoes	14 days
• Cruciferae	3 days	• Tomatoes	3 days
• Grapes (table)	4 – 6 weeks		

- Harmful if swallowed or inhaled.
- Irritating to eyes, skin and respiratory tract.
- Toxic to fish and wildlife.
- Keep out of reach of children, uninformed persons and animals.
- Store in a cool, dry place away from food and feed.
- **In case of poisoning, call a doctor and show him/her this label.**
- **RE-ENTRY INTERVAL:** Do not enter treated area until spray deposit has dried, unless wearing protective clothing.

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 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 against the remedy concerned as well as by the method, time and accuracy of application. The registration holder furthermore does not accept responsibility for damage to crops, vegetation, the environment or harm to man or animal or the 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 the event of any uncertainty.

## PRECAUTIONS:

- Do not eat, drink or smoke whilst handling this product.
- Prevent contamination of food, feed, drinking water and eating utensils.
- Wear rubber gloves and face shield when handling the concentrate.
- If you get it in your eyes, flush the eyes at once using clean water. If you get it on your skin, wash it off at once. If you spill it on your clothes, change and wash them.
- Invert the empty container over the spray or mixing tank and allow to drain 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 minimum of 10 % of that of the container. Add the rinse water to the contents of the spray tank before destroying the container.
- While spraying, avoid contact with the spray as much as you can.
- Avoid spray drift onto other crops, grazing, rivers or dams.
- Clean applicator thoroughly after use and dispose of wash water where it will not contaminate crops, grazing, rivers or dams.
- Destroy the empty container by means of perforation and flattening and never re-use it for any other purpose.
- Change and wash your work clothes. Wash yourself.

**Symptoms of human poisoning:** Ingestion can cause diarrhoea and stomach pain. Certain individuals may be sensitive to copper. If product gets into the eyes, it causes substantial but temporary eye irritation. Inhalation may cause respiratory tract irritation.

## First aid treatment:

**Ingestion:** If person is fully conscious, give large amounts of milk or water and call a doctor.

**Skin contact:** Wash thoroughly with soap and water.

**Eye contact:** Immediately flush the eyes with plenty of clean water for at least 15 minutes. Get medical attention.

**Inhalation:** Remove person to fresh air. Give oxygen if breathing is difficult.

**Note to physician:** Treat symptomatically.

## RESISTANCE WARNING:

For resistance management, **COPSTAR 120 SC**® is a group code M1 fungicide. Any fungus population may contain individuals naturally resistant to **COPSTAR 120 SC**® and other group code M1 fungicides. The resistant individuals can eventually dominate the fungus population if these fungicides are used repeatedly. These resistant fungi may not be controlled by **COPSTAR 120 SC**® or any other group code M1 fungicides.

## To delay fungicide resistance:

- Avoid exclusive repeated use of fungicides from the same fungicide group code. Alternate or tank mix with registered 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.

## DIRECTIONS FOR USE: USE ONLY AS INDICATED

**Compatibility:** Do not apply **COPSTAR 120 SC**® in combination with any acidifying products such as zinc nitrate (ZnNO<sub>3</sub>), ammonium sulphate (NH<sub>4</sub>SO<sub>4</sub>), amino-acid chelated foliar feeds or any other acidifying or chelated products, or apply these products to the fruit and leaves within 30 days after a copper application. Do not apply citric or acetic acid containing products such as potassium citrate (**ONLY-K**) or calcium or magnesium citrate in combination with or within 30 days after a **COPSTAR 120 SC**® application.

**Environmental conditions:** Do not apply **COPSTAR 120 SC**® under adverse weather conditions causing stress to the crop, such as high or low temperatures, high or low humidity, rain or frost. Do not apply when the fruit is still wet as a result of rain or dew, or if rain is imminent or expected, or under ANY circumstance where slow drying conditions might prevail or be expected as under the above conditions phytotoxicity/injury/stippling may occur. Do not apply during periods of water stress.

**Important:** It is essential that **COPSTAR 120 SC®** be kept agitated throughout the entire mixing and spraying operation. **COPSTAR 120 SC®** is a preventive spray and application must be carried out before or just as the first signs of the disease are noticed.

**Citrus:** Successive **COPSTAR 120 SC®** applications, adverse environmental conditions, late applications (March – April) or acidifying products can cause stippling of fruit. To avoid stipple formation, replace every second application with mancozeb. Do not apply **COPSTAR 120 SC®** with any buffers or acidifiers, or any other adjuvants before consulting a qualified agronomist.

**RESTRICTIONS:** Max levels of copper per ha are not to be exceeded.

CROP	DISEASE	DOSAGE PER 10 ℓ WATER	REMARKS
Apples	Scab ( <i>Venturia inaequalis</i> )	17 ml	Apply 2 applications with a 7 day interval. Spray at green tip stage.
Avocados	Fruit spot ( <i>Pseudocercospora purpurea</i> )	35 ml	Start applications early in November and repeat every 4 weeks. Apply 3 – 4 full cover applications during the season. Will also control Anthracnose if present at time of application.
Beans	Bacterial blight ( <i>Common and halo</i> )	35 ml	Apply every 7 – 14 days depending on the disease pressure. Spray immediately after heavy rains, hail or dust storms.
Citrus	Black spot ( <i>Guignardia citricarpa</i> )  Alternaria spot ( <i>Alternaria alternata</i> pv. <i>citri</i> )	35 ml  25 ml + 100 g MANCOZEB 800 WP	Start <b>COPSTAR 120 SC®</b> applications before mid October. Apply 3 more high volume sprays at 30 day intervals during the susceptible period from October to end December. During high rainfall season, a fourth application may be necessary. Apply as a high volume cover spray. Begin application at first flush (± mid September) and repeat every 28 days until harvest.
Coffee	Rust ( <i>Hemileia vastatrix</i> )	55 ml	Apply as a full cover application, commencing before rust symptoms appear. Apply 4 – 5 sprays at 4 week intervals. Apply at least 1 ℓ spray mixture per 10 m <sup>2</sup> .
Cruciferae	Downy mildew ( <i>Peronospora parasitica</i> )	35 ml	Apply every 7 – 14 days. Ensure good coverage of the whole plant.
Grapes	Downy mildew ( <i>Plasmopara viticola</i> )	35 ml	Start spraying when shoots are approximately 10 cm long and repeat every 10 – 14 days depending on weather conditions. Ensure thorough coverage of the vines. Increase the spray volume progressively from 500 ml – 1,5 ml / 10 m <sup>2</sup> , depending on the vine growth. NB: Do not apply after pea berry stage (4 – 6 weeks before harvest).
Mangoes	Bacterial spot ( <i>Xanthomonas campestris</i> )	35 ml	Apply at 2 – 4 week intervals from just after fruit set until harvest. The product is especially suited for application as the last two sprays at the end of a spray programme.
Onions	Downy mildew ( <i>Peronospora destructor</i> )	35 ml	Apply 3 – 4 applications with 10 – 14 day intervals. Apply in 300 – 500 ml water / 10 m <sup>2</sup> , depending on plant size. Start as soon as the disease is noticed, or when weather conditions are conducive to the development of the disease. Ensure complete spray coverage.
Peaches	Leaf curl ( <i>Taphrina deformans</i> )	45 ml + 140 g AG-THIRAM 800 WP (tank-mix)	Apply as a full cover spray at 60 % leaf drop and at bud swell. Add AQUA-WET** at a rate of 18 ml per 100 ℓ spray water.
Potatoes	Early blight ( <i>Alternaria solani</i> )  Late blight ( <i>Phytophthora infestans</i> )	35 ml  35 ml + 200 g MANCOZEB 800 WP (tank-mix)	Commence application before or just when first symptoms are noticed. Apply every 7 – 10 days depending on weather conditions favourable for the development of the disease. Depending on plant size, apply at 500 ml – 1,5 ℓ spray mixture per 10 m <sup>2</sup> . Ensure thorough coverage of both upper and lower leaf surfaces. Repeat application after more than 13 mm of rain or overhead irrigation. Start preventive application before first signs of the disease, depending on conditions favourable for the development of late blight infections. Apply at 7 – 10 day intervals. If late blight is present in a field, spray intervals should be shortened to 5 days. Low volume application: 200 – 300 ml water per 10 m <sup>2</sup> . High volume application: Apply 1,5 ℓ spray mixture per 10 m <sup>2</sup> . Ensure full coverage of both upper and lower leaf surfaces. Repeat application after more than 13 mm rain or overhead irrigation.
Tomatoes	Early blight ( <i>Alternaria solani</i> )  Bacterial spot Bacterial speck  Bacterial speck (on seedlings)	35 ml  35 ml  35 ml	Start application shortly after transplant when plants are 15 cm high and before symptoms appear. Apply every 7 – 10 days depending on weather conditions favourable for the development of the disease. Depending on plant size, apply at 500 ml – 2 ℓ spray mixture per 10 m <sup>2</sup> . Ensure that both the upper and lower leaf surfaces are treated. Repeat application after more than 13 mm rain or overhead irrigation. Apply as a preventive spray at 7 – 10 day intervals. Depending on plant size, apply at 500 ml – 1,5 ℓ spray mixture per 10 m <sup>2</sup> . Ensure thorough coverage of both the upper and lower leaf surfaces. Repeat application after more than 13 mm of rain or overhead irrigation. Spray seedlings at weekly intervals, using hollow cone nozzles.