# Cobstations Constant Reg. No. L7026 Act No. 36 of 1947





### FRAC FUNGICIDE GROUP CODE M1

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

## **Active Ingredient**

copper hydroxide 180 q/**l** (equivalent to 120 g/l metallic copper)

UN No. 3082



Product approved for the use in organic farming according to EEC889





**CopStar 120SC**® is a Registered Trademark of Ag-Chem Africa (Pty) Ltd SEE CONTAINER FOR BATCH DETAILS COUNTRY OF ORIGIN: REPUBLIC OF SOUTH AFRICA VERSION 1.1: 08/2016



**HARMFUL** 









agchem formulating for tomorrow®

P.O.Box 589, Silverton, 0127, Gauteng, RSA, Tel: (012) 803-0145 • Fax: (012) 803-8418 www.agchem.co.za

Rolfes)















#### WARNINGS:

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

Apples 14 days

14 days Avocados 3 davs Beans

Citrus 14 days Coffee

14 days Cruciferae 3 days

Grapes (table) 4 - 6 weeks 21 days Grapes (wine)

14 days Mangoes

Onions 14 days 14 days Peaches

Potatoes 14 days Tomatoes 3 days

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. Eve 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, Anv 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 (ZnNO3), ammonium sulphate (NH4SO4), 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. Do not apply during periods of water stress. Avoid application during night time, as it may cause stippling of fruit.

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.

CROP	DISEASE	DOSAGE PER 100& WATER	REMARKS
Apples	Scab (Venturia inaequalis)	170 mℓ	Apply 2 applications with a 7 day interval. Spray at green tip stage.
Avocados	Fruit spot (Pseudocercospora purpurea)	350 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 (Common and halo)	350 mℓ	Apply every $7-14$ days depending on the disease pressure. Spray immediately after heavy rains, hail or dust storms.
Citrus	Black spot (Guignardia citricarpa)	350 mℓ	Start CopStar 120 SC® applications before mid-October. Apply 3 high volume sprays at 30 day intervals during the susceptible period from October to end December. During a high rainfall season, a fourth application may be necessary.
	Alternaria spot (Alternaria alternata pv. citri)	250 ml + 100 g mancozeb 800 g/kg WP	Apply as a high volume cover spray. Begin application at first flush (± mid September) and repeat every 28 days until harvest.
Coffee	Rust (Hemileia vastatrix)	550 ml	Apply as a full cover application, commencing before rust symptoms appear. Apply $4-5$ sprays at $4$ week intervals. Apply at least $1\ 000\ \ell$ spray mixture per hectare.
Cruciferae	Downy mildew (Peronospora parasitica)	350 ml	Apply every 7 $-$ 14 days. Ensure good coverage of the whole plant.
Grapes	Downy mildew ( <i>Plasmopara</i> viticola)	350 mℓ	Start spraying when shoots are approximately $10  \mathrm{cm}$ long and repeat every $10-14  \mathrm{days}$ depending on weather conditions. Ensure thorough coverage of the vines. Increase the spray volume progressively from $500  \ell-1  500  \ell/\mathrm{ha}$ , depending on the vine growth. <b>NB</b> : Do not apply after pea berry stage ( $4-6$ weeks before harvest).
Mangoes	Bacterial spot (Xanthomonas campestris)	350 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 (Peronospora destructor)	350 ml	Apply $3-4$ applications with $10-14$ day intervals. Apply in $300-500$ $\ell$ water/ha, 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 (Taphrina deformans)	450 ml + 140 g <b>Ag-Thiram 800 WP*</b> (tank-mix)	Apply as a full cover spray at 60 % leaf drop and at bud swell. Add <b>Aqua-Wet**</b> at a rate of 18 mℓ per 100 ℓ spray water.
Potatoes	Early blight (Alternaria solani)  Late blight (Phytophthora infestans)	350 ml + 200 g mancozeb 800 g/kg 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 $500-1500\ell$ spray mixture per hectare. 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. <b>Low volume application</b> : $200-300\ell$ water per hectare. <b>High volume application</b> : Apply 1 $500\ell$ spray mixture per hectare. Ensure full coverage of both upper and lower leaf surfaces. Repeat application after more than $13$ mm rain or overhead irrigation.
Tomatoes	Early blight (Alternaria solani)  Bacterial spot Bacterial speck Bacterial speck (on seedlings)	350 ml 350 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 $500-2000\ell$ spray mixture per hectare. 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 $500-1500\ell$ spray mixture per hectare. 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.
	ROO WP Rog No. 18175 Act No. 36 o		, , , , , ,

<sup>\*</sup>Ag-Thiram 800 WP, Reg. No. L8175 Act No. 36 of 1947, Ag-Chem Africa (Pty) Ltd \*\*Aqua-Wet, Reg. No. L6204 Act No. 36 of 1947, Ag-Chem Africa (Pty) Ltd