

BEFORE USING THIS PRODUCT READ THE LABEL CAREFULLY!

SHAKE THE BOTTLE WELL BEFORE USE.

Fungicide



MULTIZEB 455 SC

Reg. No. L 9174 Act/Wet No. 36 of/van 1947

2:15/7/2013-June 2017

A suspension concentrate fungicide for the prevention and control of various fungal diseases on crops listed.

'n Suspensie konsentraat swamdoder vir die voorkoming en beheer van verskeie swamsiektes op gewasse soos hieronder aangedui.

ACTIVE INGREDIENT / AKTIEWE BESTANDDEEL

mancozeb (dithiocarbamate) **455 g/l** mankoseb (ditio-karbamaat)

FRAC FUNGICIDE GROUP CODE **M3** FRAC SWAMDODER GROEPKODE



villa 

Registration holder / Registrasiehouer:

Villa Crop Protection (Pty) Ltd.

Co. Reg. No. / Mpy. Reg. Nr. 1992/002474/07

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UN Number: 3082

Willow Set & Print 011 394-4486



CAUTION
VERSIGTIG



GEBRUIKSAANWYINGS INGESLUIT

VERWYS NA BESONDERHEDE
GEDRUK OP HOUER/SAK

Date formulated:

Formuleringsdatum:

DIRECTIONS FOR USE ENCLOSED

REFER TO DETAILS PRINTED
ON CONTAINER/BAG

Batch number:

Lotnummer:

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Registration holder / Registrasiehouer:

VILLA CROP PROTECTION (PTY) LTD.

Co. Reg. No. 1992/002474/07 Mpy. Reg. Nr.

PO Box / Posbus 10413,

ASTON MANOR, 1630, Tel. (011) 396 2233

CAUTION / VERSIGTIG**WARNINGS****Withholding periods:**

Allow the following withholding periods between the last application and harvest and/or feeding of the crops concerned:	
Tomatoes & Potatoes	3 days
Table grapes	4 to 6 weeks
Apples & Pears	14 days
Citrus	14 days

NOTE

THE RECOMMENDED WITHHOLDING PERIODS MEET LOCAL RESIDUE LEVEL REQUIREMENTS AND NOT NECESSARILY THE REQUIREMENTS FOR EXPORT. WHEN THE CROP IS DESTINED FOR EXPORT, CONSULT THE REQUIREMENTS AND GUIDELINES FOR EXPORT BEFORE MULTIZEB 455 SC IS USED.

- Handle with care.
- May cause irritation of the skin, eyes and air passages.
- Toxic to fish.
- Keep the container well closed when not in use.
- Store in a cool, dry and well-ventilated place away from food and feeds.
- Keep out of reach of children, uninformed persons and animals.
- Re-entry: Do not enter treated area until spray deposit has dried unless wearing protective clothing.

Aerial Application:

Notify all inhabitants of the immediate area to be sprayed and issue the necessary warnings. Avoid overlapping of applications and do not spray over or allow drift to contaminate water or adjacent areas.

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 or pest to 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 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

- Avoid inhalation of the spray mist.
- Avoid contact with the skin, eyes and clothes.
- Wear a face shield and rubber gloves when mixing the product.
- Wash thoroughly with soap and water after application and accidental contact.
- Do not eat, drink or smoke whilst applying or mixing or before washing hands and face or change of clothing.
- In case of eye contamination, rinse the eyes thoroughly with plenty of clean, cold water for at least 15 minutes. If irritation persists obtain medical aid.

- Prevent drift onto other crops, grazing, rivers, dams or areas not under treatment.
- Clean applicator after use. Dispose of rinsate where it will not contaminate crops, grazing, rivers, dams and boreholes.
- **TRIPLE RINSE** empty containers in the following manner: Invert 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 minimum of a third of that of the container. Add the rinsing to the contents of the spray tank before destroying the container in the prescribed manner.
- Destroy the empty container by perforation and flattening and dispose of it in a safe way.
- **Never re-use** the empty container for any other purpose.
- Prevent contamination of food, feeds, drinking water and eating utensils.

RESISTANCE WARNING

MULTIZEB 455 SC is a group code M3 fungicide. Any fungus population may contain individuals naturally resistant to **MULTIZEB 455 SC** and other group code M3 fungicides. The resistant individuals can eventually dominate the fungus population if these fungicides are used repeatedly. These resistant fungi may not be controlled by **MULTIZEB 455 SC** or any other group code M3 fungicide.

To delay fungicide resistance:

- avoid exclusive repeated use of fungicides from the same fungicide group code. Alternate or tank mix with products from different fungicide group codes,
- for tank mixing or alternation with products, refer to applicable, individual product labels,
- integrate other control methods (chemical, cultural, biological) into disease control programmes.

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

USE RESTRICTIONS

- Do not apply on table grapes when fruits have reached pea size (4 to 6 weeks prior to harvest), as this may cause tarnishing.
- **Please note that this product is not registered for use on tobacco and should not be used on tobacco or tobacco seedlings.**
- **The use of some Mancozeb formulations in Citrus has caused stipple like russeting in some citrus varieties under certain climatic conditions which cannot be quantified. It seems that soft citrus such as Minneola and Nova varieties are more prone to this. Other varieties which may be affected are Mandarin types and some grapefruit cultivars.**

DIRECTIONS FOR USE: Use only as directed.

Compatibility:

- **MULTIZEB 455 SC** is compatible with **Connect 500 WDG** and most fungicides and insecticides. **Do not use** with alkaline products, e.g. **Lime sulphur** and **Bordeaux** mixtures.
- 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:

- **Shake container well before mixing.**
- Half fill the mixing tank with clean water and ensure thorough agitation.
- Add the required volume of **MULTIZEB 455 SC** and thereafter fill the spray tank with water to the final spray volume.
- If **MULTIZEB 455 SC** is used in tank mixtures with powder or granular formulations, dissolve / disperse the granular formulation first in the mixing tank in a water volume of at least half the volume to be prepared while agitation takes place. Thereafter add the required volume of **MULTIZEB 455 SC**.
- When emulsifiable concentrates (including EW's) and oils are to be used with **MULTIZEB 455 SC**, ensure thorough mixing of **MULTIZEB 455 SC** in the mixing tank. Add the EC / EW / oil formulation just before the final spray mixture volume is reached with water. Maintain thorough agitation of the mixture before and during spraying.

Application instructions:

- Calibration: It is important to ensure that all application equipment is in good working order and correctly calibrated to apply the required spray volumes and dosage rate. Ensure good coverage by using the spray volumes as indicated.

- Do not apply overhead irrigation just prior to application of **MULTIZEB 455 SC**.
- **Apples and Pears:**
Low volume (LV) application can be performed with **MULTIZEB 455 SC**. Refer to the “**APPLICATION RATES**” for instructions. Follow these instructions carefully.

Aerial application:

Aerial application of **MULTIZEB 455 SC** may only be done by a registered aerial application operator using a correctly calibrated, registered aircraft according to the instructions of SANS Code 10118 (Aerial Application of Agricultural Pesticides). Ensure that the spray mixture is distributed evenly over the target area and that the loss of spray material during application is restricted to a minimum. It is therefore essential that the following criteria be met:

- **Volume:** A minimum spray mixture volume of 30 to 40 litres per hectare is recommended. As this product has not been evaluated at a reduced volume rate, the registration holder cannot guarantee efficacy, or be held responsible for any adverse effects if this product is applied aerially at a lower volume rate than recommended above.
- **Droplet coverage:** 50 to 70 droplets per cm² must be recovered at the target area.
- **Droplet size:** A droplet spectrum with a VMD of 200 to 250 micron is recommended. Limit the production of fine droplets, less than 150 micron (high drift and evaporation potential), to a minimum.
- **Flying height:** Maintain the height of the spray boom at 3 to 4 metres above the target. Do not spray when aircraft dives, is in a climb or when banking.
- Use suitable **atomizing equipment** that will produce the desired droplet size and coverage, but which will ensure the minimum loss of product. The spraying system must produce a droplet spectrum with the lowest possible Relative Span.
- Position all the atomizers within the inner 60 to 75 % of the wingspan to prevent droplets from entering the **wingtip vortices**.
- The difference in **temperature** between the wet and dry bulb thermometers, of a whirling hygrometer, should not exceed 8°C.
- Stop spraying if the **wind speed** exceeds 15 km per hour.
- Stop spraying under **turbulent**, unstable and dry conditions during the heat of the day.
- Spraying under temperature **inversion conditions** (spraying in or above the inversion layer) and/or **high humidity conditions** (relative humidity 80 % and above) may lead to the following:
 - a) reduced efficacy due to suspension and evaporation of small droplets in the air (inadequate coverage),
 - b) damage to other sensitive crops and/or non-target areas through drifting of the suspended spray cloud away from the target field.
- Ensure that the aerial spray operator knows exactly which fields to spray.

Obtain an assurance from the aerial spray operator that the above requirements will be met and that relevant data will be compiled in a logbook and kept for future reference.

APPLICATION RATES

Crop / Disease	Dosage rate	Remarks
VEGETABLES AND ROW CROPS		
Tomatoes Early blight, Late blight & <i>Septoria</i> leaf spot	350 ml / 100 l water	Apply the first application shortly after transplant. Use 500 litres spray mixture per hectare. Increase the volume to approximately 3000 litres spray mixture per hectare as the plants increase in size. Do not apply more than five (5) MULTIZEB 455 SC applications per season. Tomato seedlings: Can be used on seedlings, if necessary.

Crop / Disease	Dosage rate	Remarks
VEGETABLES AND ROW CROPS		
Potatoes Early blight & Late blight	Apply the first application when the plants are about 15 cm high, or when Blight infection is expected. Apply follow-up applications at 7 to 10 day intervals and/or after rain. Do not apply more than six (6) MULTIZEB 455 SC applications per season.	
Only Seed potatoes: <i>Fusarium</i> , Dry rot & Common scab	530 ml / 100 l water	Treat potato tubers (whole or cut) by dipping in the mixture and placing thereafter, in either, disease-free containers or in mass under cool, high humidity conditions. Change the dipping mixture frequently especially if the potatoes have a film of soil on it.
ORCHARD CROPS		
Apples and Pears Scab		Pre-blossom: Apply 3 pre-bloom applications in total. Apply the first application at green tip stage and the last just prior to blossom. Post blossom: Apply 4 to 6 applications in the post blossom stage. Apply the first application immediately after blossom. Apply the follow-up sprays at 7 to 14 day intervals.
	260 ml / 100 l water (5.3 to 9.0 l / ha)	High volume application: Suitable for the pre-blossom and post blossom applications. Apply 2000 to 3500 litres spray mixture per hectare. Use the lower recommended spray volume per hectare for the pre-blossom and for the first one or two post blossom sprays. Use the higher spray volume for the remaining applications.
	880 ml / 100 l water (4.4 to 7.0 l / ha)	Low volume application: Suitable only for the post blossom applications. Apply 500 to 900 litres spray mixture per hectare. For the first one or two post blossom sprays, use the lower recommended spray volume per hectare and the higher spray volume for the remaining applications.

Crop / Disease	Dosage rate	Remarks
ORCHARD CROPS		
<u>Grapevines</u>		
Downy mildew (<i>Plasmopara viticola</i>)	Pre-blossom: 350 ml / 100 ℓ water (1.8 to 2.6 ℓ / ha)	<u>High volume application:</u> Apply 500 to 750 litres spray mixture per hectare. Commence with the first spray when young shoots are 10 cm in length. Follow-up sprays should be applied at 7 to 10 day intervals, depending on favourable weather conditions for the development of the disease.
	Blossom to 80 % Calyx fall: 350 ml / 100 ℓ water (2.6 to 3.5 ℓ / ha)	Apply 750 to 1000 litres spray mixture per hectare. Apply sprays during blossom to 80 % calyx fall period, only if the blossoming period is longer than 14 days.
	Post blossom: 350 ml / 100 ℓ water (3.5 to 5.3 ℓ / ha)	Apply 1000 to 1500 litres spray mixture per hectare. During the post-blossom period, if weather conditions are favourable for the development of the disease, apply a further 2 sprays at 7 to 14 day intervals.
Dead arm disease (<i>Phomopsis viticola</i>)	350 ml / 100 ℓ water (1.8 to 2.6 ℓ / ha)	<u>High volume application:</u> Apply 500 to 700 litres spray mixture per hectare. Apply 3 sprays prior to blossom at 7 to 10 day intervals. Apply the first spray when the shoots are 0.5 to 1 cm in length. <u>NOTE</u> Apply sprays before overhead irrigation.

Crop / Disease	Dosage rate	Remarks
Citrus Black spot & Melanose	350 ml / 100 ℓ water	Normal rainfall during July to September: Apply 4 applications. Apply the first spray during the third week of October. Apply 3 follow-up sprays at 25 day intervals.
	OR First two sprays: 350 ml / 100 ℓ water Last two to three sprays: 260 ml PLUS 600 ml light / medium mineral oil / 100 ℓ	OR Above normal rainfall in July to September: Apply 5 applications. Commence with the first spray after full petal drop. Apply the 4 follow-up sprays at 25-day intervals.
Citrus (excluding lemons): Black spot (<i>Guignardia citricarpa</i>)	260 ml / 100 ℓ water MULTIZEB 455 SC PLUS 10 g / 100 ℓ water Connect 500 WDG PLUS 300 ml light to medium narrow range mineral oil / 100 ℓ water	Apply an application of MULTIZEB 455 SC (at 350 ml / 100 litres water) soon after petal fall. Follow up with the first MULTIZEB 455 SC plus Connect 500 WDG treatment 21 to 24 days later. Follow up with a second MULTIZEB 455 SC plus Connect 500 WDG spray 6 weeks later. Thereafter apply MULTIZEB 455 SC (at 350 ml / 100 litres water) solo 6 weeks after the second MULTIZEB 455 SC plus Connect 500 WDG application. Repeat the MULTIZEB 455 SC solo application after 21 to 24 days if conditions favour the development of late infections. Refer to the Connect 500 WDG label for USE RESTRICTIONS and DIRECTIONS FOR USE .
Citrus rust mite	130 ml / 100 ℓ water	Apply in spring.
Citrus silver mite	350 ml / 100 ℓ water	An application can be sprayed as soon as the first mites are noticed. In cases where the history of the trees and/or orchard shows a problem with mites, the spray can be applied at petal fall. Ensure thorough wetting of the leaves and fruit. Citrus silver mite can cause russetting of lemons and grapefruit, during the 5 th to 7 th week period after petal fall. Lemons: Fruitlets resulting from summer blossoms are most susceptible to infestation.
Brown rot	350 ml / 100 ℓ water	Spray the stem, soil and all the fruit up to 1 metre above the soil surface, 3 weeks before harvest.
Necrostoma	350 ml / 100 ℓ water	Apply during early December and repeat the application in early January. Apply as a full cover spray. When infection pressure is high, disease symptoms will be suppressed.

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

- **CONNECT 500 WDG** (L 9324) = **UNITE 500 WDG** (L 9325) (**Trifloxystrobin**).

UNITE 500 WDG is a registered product of / is 'n geregistreerde produk van
UNIVERSAL CROP PROTECTION (PTY) LTD.

CONNECT 500 WDG is a registered product of / is 'n geregistreerde produk van
VILLA CROP PROTECTION (PTY) LTD.