

SEE ENCLOSED LEAFLET FOR FULL DETAILS

BEFORE USING THIS PRODUCT READ THE LABEL CAREFULLY

CHLOROFLO 500 SC

ZEMA Reg. No.

FUNGICIDE GROUP CODE M5

A non-systemic fungicide suspension concentrate for the preventive control of diseases as listed in beans, groundnuts, cucurbits, potatoes, tomatoes, gladioli, roses, lawns and turf.

Active ingredients:

Chlorothalonil (chloronitrile) 500 g/ℓ

Hazard Statement

H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H330 Fatal if inhaled.
H335 May cause respiratory irritation.
H351 Suspected of causing cancer.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements

P260 Do not inhale mist/vapours or spray.
P264 Wash thoroughly after handling.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P284 Wear respiratory equipment.

Manufacturer & Supplier:

Nulandis, a division of AECI LTD
14 Field Road, Lilianton, Boksburg, 1459,
South-Africa
Tel: +27 11 823 8000



Local Distributor:

ATS Agrochemicals Ltd.
Stand 3143, Mukwe Road, Lusaka,
Zambia
Tel: +260 1 246 724-6



Net Volume:

UN No. 2996 - Organochlorine pesticide, liquid, toxic

Batch No:

Manufacturing date:

Expiry Date:

P7225



WARNING



Chloroflo® 500 SC

Reg. No. L5171, Act No. 36 of 1947
Botswana: Reg. No. W130307, Act No. 18 of 1999
Malawi Reg. No. MW/PCB/2016/0738
Namibian Reg. No. Nr. N-AR0832

A non-systemic fungicide suspension concentrate for the preventive control of diseases as listed in beans, groundnuts, cucurbits, potatoes, tomatoes, gladioli, roses, lawns and turf.

Fungicide Group Code M5

NULANDIS®
unlocking nature's potential

A member of
IAECI
Plant & Animal Health

Code P6150 / 12.2018 Version 02

ACTIVE INGREDIENT:

Chlorothalonil (chloronitrile) 500 g //

REGISTRATION HOLDER:

Nulandis® (A division of AECI Limited)

Reg. No. 1924/002590/06
PO. Box 14418
Witfield, 1467
Tel : (011) 823 8000

CAUTION

WARNINGS:

Do not apply later than 3 days before harvest of beans, potatoes, tomatoes and cucurbits. Do not use bean and groundnut hay as feed earlier than 42 days after spraying. Can irritate eyes, nose, throat and skin. May be harmful if spray mist is inhaled or when concentrate is swallowed. Keep out of reach of children, uninformed persons and animals. Store in a cool place, away from food and feed.

Re-entry: Do not enter treated area until spray deposit has dried unless wearing protective clothing.

AERIAL APPLICATION: Notify all inhabitants in the immediate vicinity of the area to be treated of your intention and issue the necessary warnings. Do not spray over adjacent areas of water nor allow spray to drift there.

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 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 INSTRUCTION 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:

Avoid inhalation of spray mist. Wear protective clothing, rubber gloves and face shield when handling concentrate and wash contaminated clothing daily. Wash with soap and water after handling and accidental skin contact.

Do not eat, drink or smoke whilst mixing or applying the product or before washing hands and face and changing clothes.

Prevent contamination of food and feed, drinking water and eating utensils.

Prevent spray drift onto other crops, grazing, rivers, dams or areas not under treatment.

Clean applicator thoroughly after use and dispose of wash water where it will not contaminate crops, grazing, rivers or dams. Rinse empty container three times with a volume of water equal to at least one tenth of the container and add rinsing to the contents of the spray tank before disposing of the container. Destroy the empty container and do not use for any other purpose. The triple-rinsed container may be sent to an approved recycling company.

RESISTANCE WARNING:

For resistance management, **Chloroflo 500 SC** is a group code M5 fungicide. Any fungus may contain individuals naturally resistant to **Chloroflo 500 SC** and other group code M5 fungicides. The resistant individuals can eventually dominate the fungus population if these fungicides are used repeatedly. The resistant fungi may not be controlled by **Chloroflo 500 SC** or any other group code M5 fungicide.

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.
- For tank mixing or alternation with products in different fungicide groups, 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.

Note: **Chloroflo 500 SC** is a multi-site contact fungicide that has a low risk of resistance development.

DIRECTIONS FOR USE: USE ONLY AS DIRECTED

COMPATIBILITY:

Chloroflo 500 SC is compatible with methomyl, mevinphos and cypermethrin. When using with these or any other chemical, be fully aware of precautions and directions on the label concerned. The use of a registered adjuvant to enhance the performance of **Chloroflo 500 SC** is strongly recommended.

MIXING INSTRUCTIONS:

Shake **Chloroflo 500 SC** container thoroughly before using. Measure the required volume of **Chloroflo 500 SC** and premix in at least 10 l water. Half fill the spray tank with water. Activate the agitator in the spray tank and mix the products in the following sequence: adjuvant, wettable powder, suspension concentrate and emulsifiable concentrate. Fill the spray tank to the required volume. Maintain agitation throughout the mixing and application period. Do not leave standing in any spray or supply tank for any length of time.

GENERAL APPLICATION INSTRUCTIONS:

Ensure good coverage of both upper and lower surfaces by applying the recommended water volume and use as a preventative measure. Shorten spray intervals under conditions favourable to the disease concerned. Repeat treatments where more than 13 mm of rain or overhead irrigation was experienced within 72 hours of application. In the case of pivot application, do not apply shortly after rain to prevent risk of damage due to run-off. Apply during a single, continuous cycle of pivot. Do not apply treatments when day temperatures exceed 30°C.

AERIAL APPLICATION:

Aerial application of **Chloroflo 500 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 are met:

- **Volume:** A minimum volume of 30 - 40 l 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 - 70 droplets per cm² must be recovered at the target.
- **Droplet size:** A droplet spectrum with a VMD of 200 - 250 micron is recommended. Limit the production of fine droplets less than 150 micron (high drift & evaporation potential) to a minimum.
- **Flying height:** Maintain the height of the spray boom at 3 - 4 metres above the target. Do not spray when aircraft dives, is in a climb or when banking.
- Use suitable **atomising 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 atomisers within the inner 60 - 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/h.
- 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:
 - reduced efficacy due to suspension and evaporation of small droplets in the air (inadequate coverage).
 - damage to other sensitive crops and / or non-target areas through the movement 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 recorded in a logbook and kept for future reference.

APPLICATION TABLE:

CROP	DISEASE	APPLICATION RATE PER 100 l WATER OR AS INDICATED	TIME OF APPLICATION
BEANS	RUST (<i>Uromyces appendiculatus</i>)	1- 2 l/ha	Apply as a full cover preventative spray. Commence at first signs of disease and spray in a programme at intervals of 7 - 14 days.
		2 l/ha	GROUND APPLICATION: Dryland beans: Use in a minimum of 500 l water/ha, with the higher concentration under conditions favouring infection. Beans under irrigation: Apply as indicated above.
		2 l/ha	AERIAL APPLICATION: Apply as above in 30 - 40 l water/ha.
GROUNDNUTS	LEAF SPOT (<i>Cercospora</i> spp.) WEB SPOT (<i>Phoma arachidicola</i>) BOTRYTIS ROT (<i>Botrytis cinerea</i>)	1 l/ha	Apply in not less than 500 l spray mixture/ha as a preventative cover spray in a regular spray programme. Commence spraying at very first sign of diseases (6 - 10 weeks after planting).
		2.25 l/ha	DRYLAND: Low infection pressure: Use at 10 - 14 day intervals.
		2.25 l/ha	High infection pressure: Use the higher dosage every 7 - 10 days in up to 1500 l water/ha depending on density of growth.
		2.25 l/ha	IRRIGATION CROP: Apply every 7 - 14 days in up to 1500 l/ha as above.
CUCURBITS	DOWNY MILDEW (<i>Pseudoperonospora cubensis</i>) ANTHRACNOSE (<i>Colletotrichum</i> spp.)	1.5 - 2.75 l/ha	Apply at 7 - 10 day intervals as a preventative full cover spray in not less than 500 l water/ha. Use the higher rate when weather conditions favour disease.
POTATOES	EARLY BLIGHT (<i>Alternaria solani</i>) LATE BLIGHT (<i>Phytophthora infestans</i>)	1 -1.5 l/ha	Chloroflo 500 SC should be applied as a preventative measure. Commence the programme with an application just before or at the appearance of first disease symptoms. Continue with spray programme until aerial growth starts to die back.
		2.75 l/ha	GROUND APPLICATION: Low infection pressure: Apply every 7 days in a minimum of 500 l water/ha. Use the low dosage under dryland conditions.
		2.75 l/ha	High infection pressure: Apply every 5 - 7 days under favourable infection conditions. Use 500-1500 l water/ha depending on growth stage.
			CENTRE PIVOT APPLICATION: Apply in a regular spray programme at intervals of 4 - 10 days depending on infection pressure. Do not exceed a water volume equal to 20 mm rain and apply during a single continuous cycle of the centre pivot. Please note: Up-to-Date potatoes are very susceptible to late blight and some infection may occur under centre pivot application under high infection pressure between January and April. It is advisable to shorten application intervals to 4 - 5 days.
TOMATOES	EARLY BLIGHT (<i>Alternaria solani</i>) LATE BLIGHT (<i>Phytophthora infestans</i>) BOTRYTIS ROT (<i>Botrytis cinerea</i>) LEAF SPOT (<i>Septoria lycopersica</i>)	1.5 l/ha	AERIAL APPLICATION: Apply in 30 - 40 l water/ha
		2.75 l/ha	Low infection pressure: As for ground application.
			High infection pressure: As for ground application.
TOMATOES	EARLY BLIGHT (<i>Alternaria solani</i>) LATE BLIGHT (<i>Phytophthora infestans</i>) BOTRYTIS ROT (<i>Botrytis cinerea</i>) LEAF SPOT (<i>Septoria lycopersica</i>)	150 m/l	Commence spray programme preventively from flowering or earlier if weather conditions are favourable for the disease. Apply as a full cover spray - up to 2000 l spray mixture/ha depending on size of plants and planting method.
		275 m/l	HIGH VOLUME APPLICATION: Use 1000 - 2000 l spray mixture/ha on mature plants.
		300 m/l	Low infection pressure: Apply every 10 - 14 days. Do not use less than 1.5 l Chloroflo 500 SC /ha on mature plants.
		550 m/l	High infection pressure: Apply every 7 - 10 days. Use a minimum of 2.75 l Chloroflo 500 SC /ha on mature plants.
GLADIOLI	LEAF SPOT (<i>Botrytis</i> spp.)	275 m/l	LOW VOLUME APPLICATION: Use 500 l spray mixture/ha on mature plants.
			Low infection pressure: Apply every 10 - 14 days. Do not use less than 2.75 l Chloroflo 500 SC /ha on mature plants.
			High infection pressure: Apply every 7 - 10 days. Use a minimum of 2.75 l Chloroflo 500 SC /ha on mature plants.
			Note: Ensure thorough wetting of both upper and lower surfaces of foliage.
ROSES	BLACK SPOT (<i>Actinonema rosae</i>)	275 m/l	Apply as a preventative full cover spray at 7 - 14 day intervals. Do not spray onto flowers.
LAWNS AND TURF	DOLLAR SPOT (<i>Sclerotinia homeocarpa</i>) <i>Rhizoctonia solani</i> , and <i>Helminthosporium</i> spp.)	500 m/l	Use 10 l spray mixture per 100 m ² in a preventative programme at 7 - 10 day intervals.
		750 m/l	Apply as a curative treatment twice within 7 days and follow up with preventative programme as above.

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