

BEFORE USING THIS PRODUCT READ THE LABEL CAREFULLY!

Insecticide



MOCAP® 150 GR

Reg. No. L 6985 Act/Wet No. 36 of/van 1947
N-AR 0776

2: 25/1/2013-Jan2017

A granular contact nematicide for the control of nematodes in citrus, potatoes, tobacco and certain vegetables as indicated.

'n Korrelvorm kontak aalwurmdoder vir die beheer van aalwurms in sitrus, aartappels, tabak en sekere groente soos aangedui.

ACTIVE INGREDIENT / AKTIEWE BESTANDDEEL

ethoprophos (organophosphate) **150 g/kg** etoprofos (organofosfaat)

IRAC INSECTICIDE GROUP CODE **1B** IRAC INSEKDODER GROEPKODE

g

villa 

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

Website / Webblad: www.villacrop.co.za

UN Number: 2783

Willow Set & Print 011 394-4486



HARMFUL
SKADELIK



GEBRUIKSAANWYSYNGS 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:

MOCAP® 150 GR

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ACTIVE INGREDIENT / AKTIEWE BESTANDDEEL:

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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

HARMFUL**SKADELIK****WARNINGS****Withholding periods:**

Minimum number of days between the last application and harvest:	
Potatoes	70 days
Lettuce, Spinach	74 days
Green beans	88 days
Baby marrows, Butternuts, Patti pans, Peas	105 days
Cabbages	106 days

NOTE

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.

- Handle with care.
- Poisonous if swallowed, inhaled or absorbed through skin.
- May irritate eyes.
- Toxic to aquatic organisms, birds and wildlife.
- Harmful to humans and animals.
- Keep out of reach of children, animals and uninformed persons.
- Store under lock and key in a cool place away from food and feed.
- Re-entry – Do not enter treated area within one day after treatment unless wearing protective clothing.
- In case of poisoning - **CALL A DOCTOR AND MAKE THIS LABEL AVAILABLE TO HIM.**

Although **MOCAP® 150 GR** is regarded as crop-safe on most important cultivars, this does not mean that a more sensitive cultivar might not be commercialized in the future. Where a new cultivar is encountered, large areas should not be treated without prior testing of **MOCAP® 150 GR** on that cultivar.

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, compatibility with other substances not indicated on the label and the occurrence of resistance of the 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 the event of any uncertainty.

PRECAUTIONS

- Do not inhale dust.
- Avoid contact with the skin.
- Wear protective clothing (rubber gloves, face shield and rubber boots) when handling or applying the product.
- Wash contaminated clothing daily.

- Wash immediately with soap and water after use or accidental skin contact.
- Do not eat, drink or smoke whilst mixing or applying or before washing hands and face.
- Prevent contamination of food, eating utensils, feed and drinking water.
- Prevent contamination of other crops, grazing, rivers, dams or other areas not under treatment.
- Prevent run-off from treated areas, it may be harmful to aquatic organisms in adjacent areas.
- Keep all livestock out of treated areas for at least 4 weeks.
- **ENSURE THOROUGH INCORPORATION OF MOCAP® 150 GR GRANULES TO MINIMIZE RISK TO BIRDS AND OTHER ANIMALS.**
- Cultivate headlands to cover exposed granules.
- Empty application hopper thoroughly after each day's use and return all bags to a secure pesticide storeroom.
- Ensure hoppers are dry before filling.
- Shake out the bags thoroughly into the application hopper.
- Destroy empty bags by burying or burning them. When burning – do not inhale smoke.
- **Do not** re-use the bags for any other purpose.

SYMPTOMS OF HUMAN POISONING

Nausea, vomiting, abdominal cramps, diarrhoea, excessive salivation, headache, giddiness, weakness, blurred vision, tearing, loss of muscular co-ordination, slurring of speech, twitching of muscles (especially of tongue and eyelids), mental confusion, disorientation, difficulty in breathing (chest tightness) and runny nose.

FIRST AID TREATMENT

ALWAYS OBTAIN TREATMENT BY A DOCTOR IMMEDIATELY.

- **Inhalation:** Remove the person from the source of poisoning and keep the person calm and reassured. If the patient is not breathing, commence with artificial respiration and provide oxygen or closed chest cardiac massage.
- **Skin contact:** Remove contaminated clothing immediately and rinse contaminated body area thoroughly with plenty cold water and non-scrubbing soap. Do not rub the skin. Emergency personnel should wear gloves and avoid contamination.
- **Eye contact:** Flush contamination out of eyes with clean lukewarm, gently flowing water for at least 15 minutes, while holding eyelid(s) open. Take care not to rinse contaminated water into the unaffected eye or onto the face.
- **If swallowed:** If swallowed, drink 2 to 3 glasses of water and induce vomiting by tickling the back part of the throat. However, **do not** induce vomiting or give anything by mouth to an **unconscious person**. Vomiting may occur spontaneously. To prevent aspiration, position patient on his side with his head in a lower position than his waist. If vomiting while patient is conscious, give water to further dilute the chemical. Persons attending to the victim must avoid direct contact with heavily contaminated clothing and vomitus. Take the patient immediately to the nearest doctor or hospital, whichever is faster. **SHOW THIS LABEL TO THE DOCTOR.**

NOTE TO PHYSICIAN

MOCAP® 150 GR is a cholinesterase inhibitor. Support respiration, measures should include the removal of secretions, maintenance of the patient's airway and if necessary, artificial ventilation. If cyanosis is absent, administer 2 to 4 mg atropine sulphate intravenously (0.05 mg/kg for children). Repeat atropine sulphate at 5 to 10 minute intervals until patient is fully atropinized (dry flushed skin, tachycardia, papillary dilation) and maintain for at least 48 hours. If cyanotic, give initial atropine sulphate dose intramuscularly and start measures to improve ventilation.

Administer reactivator, e.g. PROTOPAM, Ayerst (2-PAM) up to a total dose of 1 to 2 grams 2-PAM (20 to 40 mg/kg for children) in 100 cc saline over 15 to 30 minutes. A second dose may be given after one hour if muscle weakness persists. May be given by intramuscular or subcutaneous routes if intravenous administration is not feasible. In case of skin contact, wash the patient with soap and water followed by wash with 95 % ethyl alcohol. Keep the patient under constant observation for 24 to 36 hours. Symptoms may persist for one month.

Theophylline, morphine, barbiturates, phenothiazines, reserpine and succinyl choline are contra-indicated.

RESISTANCE WARNING

MOCAP® 150 GR is a group code 1B insecticide. Any insect population may contain individuals naturally resistant to **MOCAP® 150 GR** and other group code 1B insecticides. The resistant individuals can eventually

dominate the insect population if these insecticides are used repeatedly. These resistant insects may not be controlled by **MOCAP® 150 GR** or any other group code 1B insecticide.

To delay insecticide resistance:

- avoid exclusive repeated use of insecticides from the same insecticide group code. Alternate or tank mix with products from different insecticide group codes,
- integrate other control methods (chemical, cultural, biological) into insect control programmes.

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

IMPORTANT NOTES

ALL CROPS:

1. Do not use **MOCAP® 150 GR** on soils of pH 9 or above or where irrigation water has a pH of 9 or above.
2. Only apply **MOCAP® 150 GR** to soil in good tilth, free from trash and weeds.
3. Do not apply to soils that cannot be easily cultivated.
4. Only use accurate and properly calibrated equipment for the application of **MOCAP® 150 GR** to ensure even and uniform placement of the granules on the soil surface.

ALL CROPS (EXCEPT CITRUS):

5. It is essential to incorporate and mix the **MOCAP® 150 GR** granules thoroughly with the soil immediately after application to a depth of 15 to 25 cm using suitable equipment e.g., a tandem disc (at a speed of 8 km per hour) or a rotovator. Inadequate depth of incorporation will reduce pesticidal activity and may result in infestations occurring on the lower roots and tubers.
6. **Citrus:**
The **MOCAP® 150 GR** application must be preceded and immediately followed by irrigation to ensure proper distribution of the **MOCAP® 150 GR** active ingredient in the root zone.
7. Adequate soil moisture during and after application is essential to activate the product and enhance distribution through the target area. Soil should be moist when product is applied and incorporated. Rainfall or irrigation (20 mm) after incorporation will additionally assist with even distribution of the product. Excessive rainfall/irrigation can, however, result in the product moving too quickly through the root zone and nematode damage could then occur.
8. Nematode pest pressure is strongly influenced by many factors, especially soil type and the susceptibility of previous crops. The high rate is recommended for use in situations where a previous crop has been damaged by nematodes and in high risk situations, e.g., irrigated crops on light sandy soils. Irrespective of treatment rate, severe losses may still occur. For further information, consult your **Villa Crop Protection** representative.
9. Although the efficacy of the product has been proven, its performance and persistence is strongly influenced by factors outside the manufacturer's control, (i.e., mono-cropping or rotation with nematode susceptible crops, high nematode infestation, soil type, e.g., very sandy soils or soils with high organic matter content, too little or excessive irrigation or rainfall, use of infested seed, etc.). Should such factors occur, substantial nematode damage may result.
10. **MOCAP® 150 GR** has not been tested for its effect on *Globodera rostochiensis* and *Meloidogyne chitwoodi*. Its use is therefore not recommended for the control of these nematode species.

POTATOES: (Also see notes 1 to 10 under "ALL CROPS")

1. Do not use **MOCAP® 150 GR** on seed or chipping potatoes when any of the factors mentioned in 8 and 9 above are suspected.
2. The practice of storing potatoes in the ground may result in a late nematode infestation. Potatoes should be lifted as soon as the full crop potential is reached.

VEGETABLES: (Also see notes 1 to 10 under "ALL CROPS")

1. **IT IS NOT POSSIBLE FOR THE REGISTRATION HOLDER TO CONTINUOUSLY TEST THE SAFETY OF MOCAP® 150 GR ON NEW CULTIVARS. SAFETY OF MOCAP® 150 GR WHEN USED AS RECOMMENDED HAS BEEN SHOWN ON THE CULTIVARS LISTED BELOW. ALSO INDICATED IS WHETHER SEED OR TRANSPLANTS WERE USED.**

For further information relating to vegetable cultivars tested with **MOCAP® 150 GR**, consult your **Villa Crop Protection** representative.

- | | |
|--|----------------|
| • Baby marrows (Caserta) | - seeded |
| • Butternuts (Ambassador) | - seeded |
| • Cabbages (Conquestador and Glory of Enkhuizen) | - transplanted |
| • Green beans (Contender and Paulista) | - seeded |
| • Lettuce (Commander and Great Lakes 659) | - transplanted |

- Patti pans - seeded
- Peas (Puget) - seeded
- Spinach (Ford Hook Giant) and - seeded and transplanted
- Spinach (Viroflay) - transplanted

2. **DO NOT USE MOCAP® 150 GR ON VEGETABLES GROWN IN GLASSHOUSES OR TUNNELS.**
3. It is essential that crops, particularly sensitive crops such as lettuce and spinach, do not come into contact with **MOCAP® 150 GR** at concentrations higher than recommended. During application ensure no overlap.
4. For vegetables with a long growing season the higher dosage is recommended.
5. Note the minimum withholding periods between application and harvest under “**WARNINGS**”.

DIRECTIONS FOR USE: Use only as directed.

- Assure even and uniform placement of the granules on the soil surface. Only apply **MOCAP® 150 GR** with accurate and properly calibrated equipment (e.g. Microband).
- The **MOCAP® 150 GR** granules must be incorporated into the soil directly after application.

APPLICATION RATES

Crop / Pest	Dosage Rate	Remarks
<u>Citrus</u> Citrus nematode (<i>Tylenchulus</i> <i>semipenetrans</i>)	10 g/m ² drip area	Remove organic material from the soil surface before application. Apply MOCAP® 150 GR evenly in the drip area of the tree at the start of nematode activity during Spring. Apply mid-way through an irrigation cycle by first applying at least 10 mm of water, then apply the MOCAP® 150 GR , followed immediately by another 10 mm of water. This practice will ensure proper distribution of MOCAP® 150 GR active ingredient in the root zone.
<u>Potatoes</u> Table potatoes Nematodes	<u>Low nematode infestation:</u> 35 kg/ha <u>High nematode infestation:</u> 50 kg/ha	Apply MOCAP® 150 GR as a broadcast application prior to planting or the formation of ridges and beds. Incorporate granules into the soil to a depth of 15 to 25 cm. Plant potatoes soon after application, but not later than 7 days post application. In situations where severe nematode infestation is expected, an additional nematicidal treatment is recommended.
<u>Seed and Chipping potatoes</u> Nematodes	50 kg/ha	Refer to “ IMPORTANT NOTES ”.
<u>Vegetables</u> Baby marrows, Butternuts, Cabbages, Green beans, Lettuce, Patti pans, Peas & Spinach Nematodes Refer to the list of cultivars under “ VEGETABLES ” above.	<u>Low nematode infestation:</u> 35 kg/ha <u>High nematode infestation:</u> 50 kg/ha	Apply MOCAP® 150 GR as a broadcast application prior to planting or the formation of ridges and beds. Incorporate granules into the soil to a depth of 15 to 25 cm. Plant vegetables 10 to 14 days after application. In situations where severe nematode infestation is expected, an additional nematicidal treatment is recommended. Refer to “ IMPORTANT NOTES ”.

Crop / Pest	Dosage Rate	Remarks
Tobacco (Irrigated tobacco) Root-knot nematodes (<i>Meloidogyne</i> spp.)	50 kg/ha	Apply MOCAP® 150 GR as a broadcast application prior to planting or the formation of ridges and beds. Incorporate granules into the soil to a depth of 15 to 25 cm. Transplant tobacco 3 to 7 days after application. In situations where severe nematode infestation is expected, an additional nematicidal treatment is recommended. Refer to “ IMPORTANT NOTES ”.

MOCAP® 150 GR is a registered trademark of / is 'n geregistreerde handelsmerk van **AMVAC CHEMICAL CORPORATION USA.**