

BEFORE USING THIS PRODUCT READ THE LABEL CAREFULLY!

Insecticide



METHIDATHION 420 EC

Reg. No. L 7584 Act/Wet No. 36 of/van 1947

1:21/09/04 - Jan2019

An emulsifiable concentrate contact insecticide for the control of certain insect pests in crops as indicated.

'n Emulgeerbare konsentraat kontak insekdoder vir die beheer van sekere insekplae in gewasse soos aangedui.

ACTIVE INGREDIENT / AKTIEWE BESTANDDEEL

methidathion (organophosphate) **420 g/l** metidation (organofosfaat)

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



villa

Registration holder / Registrasiehouer:

Villa Crop Protection (Pty) Ltd.

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

PO Box / Posbus 10413, Aston Manor, 1630

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UN Number: 3017

Willow Set & Print 011 394-4486



TOXIC
GIFTIG



GEbruiksaanwysings Ingesluit

VERWYS NA BESONDERHEDE
GEDRUK OP HOUER/SAK

Date formulated:
Formuleringsdatum:

DIRECTIONS FOR USE ENCLOSED
REFER TO DETAILS PRINTED
ON CONTAINER/BAG

Batch number:
Lotonommer:

METHIDATHION 420 EC

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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

TOXIC**GIFTIG****WARNINGS****Withholding periods:**

Minimum time between the last application and harvest:	
Citrus (one application only on fruit)	56 days
Potatoes	6 days
Cactus Pears	1 day
Vines (one application only of METHIDATHION 420 EC at 50 ml / 100 l water)	8 days

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 extreme care.
- Poisonous when inhaled, swallowed or absorbed through the skin.
- Can cause skin and eye irritation.
- Toxic to bees.
- Highly toxic to fish, birds and wildlife.
- Store under lock and key in a cool, dry place, away from food and feedstuffs.
- **Storage:** Store in its original container in isolated, dry, cool (avoid temperatures above 32 °C) and well-ventilated area.
- Keep out of reach of children, uninformed persons and animals.
- **Flammable:** store away from open flames and sparks.
- **Re-entry:** Do not enter treated area within two (2) days after treatment unless wearing protective clothing.
- **In case of poisoning, immediately call a doctor and make this label available to him/her or transfer the patient to a hospital.**

Aerial application:

Notify all inhabitants in the immediate vicinity of the area to be sprayed and issue the necessary warnings. Do not spray over water and adjacent areas and take precaution not to allow drift of spray to contaminate adjacent areas and water.

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 pests to the remedy concerned, as well as by the method, time and accuracy of application. The registration holder further 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

- Do not inhale the spray mist or fumes.
- Avoid eye and skin contact.
- Wear a protective overall, rubber gloves, rubber boots and a facemask or suitable respirator.
- Wash with soap and water immediately after use or in the event of accidental skin contact.
- Wash contaminated clothing after use.
- Do not eat, drink or smoke while applying and mixing, or before washing hands and face and change of clothing.
- Avoid drift of spray onto other crops, grazing, rivers, dams and areas not under treatment.
- Do not apply when bees are very active on the crops.
- Clean the applicator after use.
- Do not contaminate crops, rivers, dams, boreholes, fountains, etc. with rinse water.
- **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 described manner.
- Destroy the empty container by perforation and flattening and dispose of it in a safe manner.
- **Never** re-use the empty container for any other purpose.
- Prevent contamination of food, feeds, drinking water and eating utensils.

SYMPTOMS OF HUMAN POISONING

Symptoms might appear and progress with extreme rapidity. Headache, fatigue, faintness, giddiness, excessive sweating, nausea, abdominal pain, vomiting, diarrhoea, tightness of the chest, anxiety, blurred vision, muscle twitching (beginning in the eyelids and tongue), small pupils, respiratory distress, convulsions, coma. Confusion, ataxia, slurred speech and loss of reflexes are some of the central nervous system effects which may lead to misdiagnosis as acute alcoholism.

FIRST AID TREATMENT

- Remove the patient from the source of poisoning to a well-ventilated area and keep him/her calm and reassured.
- Skin contact: Remove contaminated clothing and rinse contaminated body area thoroughly with plenty of soap and cold water. Do not rub the skin.
- Eye contact: Flush contamination out of eyes with clean water for at least 15 to 20 minutes, holding the eyelid(s) open.
- Swallowed: If product has been swallowed, have the person rinse mouth thoroughly with water. **Do not induce vomiting due to the presence of an aromatic solvent.** Do not give any salt water or any other emetic. **Seek medical attention immediately.** Administer artificial respiration or closed chest cardiac massage if necessary. Do not apply mouth-to-mouth respiration. Never give anything by mouth to an unconscious person.
- **TAKE THE PATIENT IMMEDIATELY TO THE NEAREST PHYSICIAN.**

NOTE TO PHYSICIAN

- The product contains a solvent that may cause chemical pneumonitis if aspirated into lungs.
- Administer atropine sulphate intravenously as early as possible in an adequate dosage, until signs of atropinisation (dry flushed skin, tachycardia and pulse rate of over 120 per minute) occur.
- In severe progressive cases of poisoning, administer pralidoxine (2-PAM) very slowly. Toxogonin can be administered instead of 2-PAM.
- To prevent gastrointestinal absorption in the unconscious that have swallowed this product, perform stomach lavage, using bicarbonate solution and activated charcoal.
- Avoid aminoglycosides and succinylcholine, which have a blocking effect on the neuromuscular junction. Morphine, similar drugs, Phenothiazines, reserpine and theophylline are contra-indicated.

RESISTANCE WARNING

METHIDATHION 420 EC is a group code 1B insecticide. Any insect population may contain individuals naturally resistant to **METHIDATHION 420 EC** 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 **METHIDATHION 420 EC** 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.

USE RESTRICTIONS

Organophosphorous resistant Citrus red scale (*Aonidiella auranti*) occurs in certain areas and the control with **METHIDATHION 420 EC** may **not** be adequate.

DIRECTIONS FOR USE: Use only as directed.

Applications should not be performed under very hot conditions or when plants are under stress. Rain or irrigation within 48 hours after application will adversely affect control.

Compatibility:

- **METHIDATHION 420 EC** is **not compatible** with **Lime sulphur, Bordeaux mixture, Benomyl** plus oil, **Zinc oxide** or **Calcium arsenate**.
- The compatibility of **METHIDATHION 420 EC** with other products may be influenced by the formulation of the products involved, as well as the quality of the water. As these factors may vary, a physical compatibility test must always be performed before such tank mixture is sprayed.
- When **METHIDATHION 420 EC** is used in conjunction with any other agricultural remedy, adhere to all **WARNINGS, PRECAUTIONS** and **DIRECTIONS FOR USE** mentioned on that label.

Mixing Instructions:

- Half fill the spray tank with clean water.
- Add a suitable acidifier/buffer, such as **AQUABUFF** (L 5451 / W 130060), **COMMODOBUFF** (L 5390 / N-AR 1107) or **PAZBUFF** (L 5385), while agitating the water.
- Shake the **METHIDATHION 420 EC** container well before use.
- Add the recommended volume of **METHIDATHION 420 EC** to the spray tank.
- Keep the agitator running whilst the balance of the water is added to the tank.
- Ensure that thorough agitation of the mixture is maintained during mixing and spraying.
- If any other product is to be mixed with **METHIDATHION 420 EC**, the recommended quantity of this product must be pre-mixed, before adding to the spray tank.
- Agitate the water in the spray tank and then add the product(s) to the tank in the following sequence (as applicable): acidifier/buffer or adjuvant, suspension concentrate, water-soluble concentrate, emulsifiable concentrate.
- Prepared spray mixture must not be left in the spray tank for any length of time, e.g. overnight.

Ground Application:

- It is important to 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.
- A mistblower or any medium or high-volume sprayer, which is equipped with an efficient agitation mechanism, may be used.
- Ensure that the application equipment is correctly calibrated and in a good working condition.

Aerial Application:

Aerial application of **METHIDATHION 420 EC** may only be done by a registered aerial application operator using a correctly calibrated, registered aircraft according to the instructions of SANS 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 spray mixture volume of 30 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 aurally at a lower volume rate than recommended above.
- **Droplet coverage:** 30 to 40 droplets per cm² must be recovered at the target area.
- **Droplet size:** A droplet spectrum with a VMD of 250 to 280 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 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 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 / Pest	Dosage Rate	Remarks
Citrus <ul style="list-style-type: none"> • <u>NOTE – VERY IMPORTANT</u> In the case of fruit produced for export to countries where the MRL for Methidathion has been set to lowest level of detection (LoD, e.g. European Union), do not apply METHIDATHION 420 EC later than 90 % petal-fall. • Apply as a high volume full cover spray. Ensure thorough wetting, especially the tops and inside of the trees. 		
Mealy bugs (<i>Planococcus citri</i> , <i>Nipaecoccus vastator</i> , <i>Pseudococcus longispinus</i> & <i>Paracoccus burnerae</i>)	150 ml / 100 ℓ water	Preventative treatment (prior to Scale infestation). Grape fruit and soft skin cultivars: Do first application during August to September at 20 to 30 % petal drop and the second 4 weeks later. Other Cultivars: Apply Profenofos 500 EC at 20 to 30 % petal drop, followed by METHIDATHION 420 EC 4 weeks later. This treatment will control Soft brown scale and suppress Citrus flat mite (<i>Brevipalpus californicus</i>) and Waxy scale.
Red scale (<i>Aonidiella auranti</i>)	150 ml / 100 ℓ water	Apply two applications. The first pre-flower in August and the second 4 weeks after 100 % petal drop. Add 1 litre light mineral oil per 100 litres water to the pre-flowering application.
Soft brown scale (<i>Coccus hesperidum</i>)	50 ml / 100 ℓ water	Apply when the pest is noticed. A second application may be necessary to control crawlers initially protected by females.
Waxy scale (<i>Gascardia spp.</i>)	150 ml / 100 ℓ water	Summer generation: Apply a full cover spray when the nymphs start migrating from the leaves to the twigs. Winter generation: Apply as for the summer generation, but as a post-harvest application.
Soft green scale (<i>Pulvinaria aethiopica</i>)	150 ml / 100 ℓ water	Apply as a full cover spray during the period 5 to 6 weeks after petal drop.
<u>Grapevines</u> Mealybug (<i>Planococcus ficus</i>)	50 ml / 100 ℓ water	Apply as a full cover spray using about 6500 litres spray mixture per hectare. Apply only as a single late corrective treatment in addition to the standard spraying programme.

Crop / Pest	Dosage Rate	Remarks
<u>Deciduous Fruit</u> Pernicious scale (<i>Quadraspidioitis perniciosus</i>)	75 ml / 100 ℓ water	Winter dormant spray. Apply at least two high volume high pressure applications. The first as soon as possible after leaf drop, but prior to pruning and the second 4 weeks later. More than two applications may be necessary. These treatments will assist in the control of Red scale, Grey scale, Mealy bug and Woolly apple aphid.
<u>Cactus Pear</u> Cochineal (<i>Dactylopius opuntiae</i>)	50 ml / 100 ℓ water	Apply a full cover spray to the point of run-off, when the pest is present.
Prickly pear moth (<i>Cactoblastis cactorum</i>)	50 ml / 100 ℓ water	Apply a cover spray during the egg laying period, but before hatching. Wet the egg batches thoroughly. In the Karoo , apply during the first two weeks of March and the first two weeks of November.
<u>Potatoes</u> Potato tuber moth (<i>Phthorimaea operculella</i>)	100 ml / 100 ℓ water	Ground application: Apply as a full cover spray using at least 500 litres spray mixture per hectare, when the first moths appear. Repeat at 7 to 10-day intervals. The potatoes should be ridged at least twice during the season.
	500 ml / ha	Aerial application: Apply when the first moths appear. Repeat at 7 to 10-day intervals. The potatoes should be ridged at least twice during the season.

AQUABUFF and/en **COMMODOBUFF** are registered products of / is geregistreerde produkte van
Villa Crop Protection (Pty) Ltd.

PAZBUFF is a registered product of / is 'n geregistreerde produk van
Universal Crop Protection (Pty) Ltd.