



The miracles of science™

# PREVATHON™

Reg. No. L8622 Act No. 36 of 1947

Reg. Nr. L8622 Wet Nr. 36 van 1947

**A suspension concentrate stomach and contact insecticide for the control of potato tuber moth and potato leaf miner in potatoes and tomato leaf miner and American (African) bollworm in tomatoes.**

**'n Suspensie konsentraat maag en kontak insekdoder vir die beheer van aartappelmot en aartappel bladmyner in aartappels en tamatievalslandmeter en Amerikaanse (Afrika) bolwurm in tamaties.**

**INSECTICIDE GROUP CODE 28 INSEKDODER GROEP KODE**

**ACTIVE INGREDIENT**

chlorantraniliprole  
(anthranilic diamide)

200 g/l

**AKTIEWE BESTANDDEEL**

chlorantraniliprool  
(antraniliese diamied)

**Net Volume**

**500mℓ, 1ℓ,  
& 3ℓ**

**Netto Volume**

**REGISTERED BY /  
GEREGISTREER DEUR:**

DUPONT DE NEMOURS SOUTH AFRICA  
(PTY) LTD  
Co. Reg. No. 2009/014079/07  
P O BOX / POSBUS 3332  
HALFWAY HOUSE 1685  
Tel: (011) 218-8600

**24 Hour/Uur Emergency  
Number/Noodnommer:  
083 123 3911**

BATCH NUMBER  
DATE MANUFACTURED

LOTNOMMER  
DATUM VERVAARDIG

**UN No. / VN Nr. 3082**

**CAUTION  
VERSIGTIG**

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## **WARNINGS:**

- **WITHHOLDING PERIODS:** The following minimum number of days (withholding periods) between last application and harvest must be adhered to:  
**Tomatoes..... 1**
- Handle with care.
- This product is not likely to be hazardous by inhalation or skin contact.
- This product is toxic to aquatic invertebrates.
- Keep out of the reach of children, uninformed persons and animals.
- Store in the closed labelled original container at temperatures not exceeding 25°C away from food and feed.
- Use of this material in a manner or at a time other than in accordance with the directions may cause excessive residues or other undesirable results.
- **RE-ENTRY:** Do not enter treated area until spray deposit has dried.

**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 pest 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 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 immediately in the event of any uncertainty.**

## **PRECAUTIONS:**

- Do not inhale spray mist.
- Do not enter treated areas until the sprayed solution has dried.
- Persons in contact with the insecticide should wear protective clothing (long-sleeved shirts and long pants, shoes with socks and gloves).
- Wash yourself after application of the product.
- Wash contaminated clothing after working with the product.
- In case of eye contact wash immediately with plenty of water.
- In case of ingestion call a physician or poison centre.
- Do not eat, drink or smoke whilst applying or mixing, or before washing hands and face.
- Prevent contamination of feed, food, eating utensils and drinking water.
- **DO NOT APPLY DIRECTLY TO AND PREVENT DRIFT ONTO OTHER EDIBLE CROPS THAN INDICATED ON THE LABEL, GRAZING, RIVERS, DAMS AND AREAS NOT UNDER TREATMENT.**
- Clean applicator after use and dispose of wash water where it will not contaminate crops, grazing, food or water.
- Rinse the empty container three times with a volume of water equal to a minimum of 10% of that of the container. Add the rinsate to the contents of the spray tank before destroying the container.
- Destroy empty container by perforation and flattening, and never re-use for any other purpose.

## **RESISTANCE WARNING**

**PREVATHON™** is a group code 28 insecticide. Any insect population may contain individuals naturally resistant to **PREVATHON™** and other group code 28 insecticides. The resistant individuals can eventually dominate the insect population if these insecticides are used repeatedly. These resistant insects may not be controlled by **PREVATHON™** or any other group code 28 insecticide.

### **To delay insecticide resistance:**

- Avoid exclusive repeated use of insecticides from the same insecticide group code. Alternate 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.

Some insects (e.g. *Phthorimaea operculella*, *Liriomyza huidobrensis*, *Chrysodeixis acuta*, *Helicoverpa armigera*, etc.) have been able to develop resistance to commercially available products. When resistance occurs, recommended rates fail to suppress the pest population below economic thresholds. The onset of resistance cannot be predicted and local advisors should be consulted for resistance management recommendations. As a result of its unique mode of action, **PREVATHON™** is ideally suited for applications where resistance management is important. Whilst there is no evidence of insect resistance to chlorantraniliprole, these guidelines will maximise the effective life of the product:

1. Where appropriate, alternate **PREVATHON™** with compounds from different chemical classes (oxadiazine e.g. **Steward® 150 EC**, pyrethroid, organophosphate, neonicotinoid, spinosyn, diacylhydrazine or other insect growth regulators). We recommend alternation with registered products from these classes and not to exceed the maximum number of **PREVATHON™** applications per season as per the instructions under **DIRECTIONS FOR USE** on this label.
2. Monitor insect populations and apply **PREVATHON™** according to the label instructions when locally determined economic thresholds are reached. It is recommended that two to three consecutive **PREVATHON™** applications are applied as a block spray. Follow these label recommendations precisely for the dosage rates, spray intervals and the optimum timing to apply **PREVATHON™**.
3. **PREVATHON™** helps conserve a large number of beneficial arthropods (parasitoids and predators). While these beneficial arthropods cannot be relied upon to control pests, they are of potential value and can be monitored along with pests in pest management programmes on these crops.

According to the standards of Good Agricultural Practices, **PREVATHON™** should not be applied when honeybees are actively foraging.

## **GENERAL INFORMATION:**

**PREVATHON™** has a novel mode of action and acts by binding to and activating insect ryanodine receptors. This activation stimulates release and depletion of calcium from the internal stores of muscles, resulting in impaired muscle regulation, paralysis and ultimately insect death. Death of the pest occurs within 2-3 days, but inhibition of insect movement and feeding occurs rapidly.

**PREVATHON™** is active as a larvicide through ingestion (stomach action) and through cuticular absorption (contact action).

**PREVATHON™** controls mainly Lepidopteran insect pests, but also some insect pests in other Orders e.g. Coleoptera, Diptera etc. Applications of **PREVATHON™** have been shown to leave substantial populations of many beneficial insects (predators, parasitoids and pollinators) as well as predatory mites and can therefore be used effectively in Integrated Pest Management (IPM) programmes.

**RAINFASTNESS:** Once the spray mixture has dried on foliage and fruit (which can take up to 2 hours after application) on the target area, **PREVATHON™** will not be washed off by rainfall or sprinkler irrigation and the normal residual activity of the product should not be affected. Nevertheless repeated abnormal rainfall / overhead irrigation subsequent to application may reduce product effectiveness.

#### **DIRECTIONS FOR USE:**

**USE ONLY AS DIRECTED**

#### **COMPATIBILITY:**

The compatibility of **PREVATHON™** has not been fully investigated. **PREVATHON™** is compatible with **Tanos®** (Reg. No. L6564 Act No. 36 of 1947), **DuPont Kocide® 2000** (Reg. No. L7805 Act No. 36 of 1947), **Dithane M-45 800 WP** (Reg. No. L2914 Act No. 36 of 1947), **Trend® 90** (Reg. No. L8207 Act No. 36 of 1947), **H & R Crop Oil** (Reg. No. L6802 Act No. 36 of 1947), **Villa 51** (Reg. No. L8050 Act No. 36 of 1947), **Break-Thru** (Reg. No. L6764 Act No. 36 of 1947), **Entrée** (Reg. No. L8055 Act No. 36 of 1947) & **Bladbuff 5** (Reg. No. L3351 Act No. 36 of 1947).

*Consult the labels of the above-mentioned products for full particulars.*

For more compatibility information, or in the event of uncertainty, contact your nearest **DuPont** representative.

It is recommended that users premix a small quantity of a desired tank mixture containing **PREVATHON™** and observe for possible adverse changes (settling out, flocculation, etc.). Avoid tank mixtures of several products.

#### **TANK MIXING:**

Spray equipment must be clean and free of previous pesticide deposits before applying **PREVATHON™**. Fill spray tank  $\frac{1}{4}$  to  $\frac{1}{2}$  full with clean water. Add the required amount of **PREVATHON™** directly into the tank and fill with water whilst stirring constantly.

#### **MIXING SEQUENCE:**

If **PREVATHON™** is tank mixed with other products, always first add water dispersible granule formulations (e.g. **Tanos®**), followed by wettable powders, followed by suspension concentrates (e.g. **PREVATHON™**) to the spray tank followed by other formulations (where applicable) in the following order:

- water soluble concentrates
- oil-based suspension concentrates
- emulsifiable concentrates
- adjuvants, surfactants and spray oils

Allow enough time for complete mixing and dispersion after addition of each product before the next product is added. Also refer to **COMPATIBILITY** statement above.

## APPLICATION:

Apply **PREVATHON™** as a high volume full cover application with conventional spray equipment which is correctly calibrated to provide thorough coverage of the target crop and correct dosage rate per hectare. In tomatoes **PREVATHON™** can be applied either as high volume full cover application or reduced volume mistblower application in a minimum 500 litres spray mixture per hectare.

<p><b>POTATOES:</b> Potato tuber moth (larvae) <i>Phthorimaea operculella</i></p>	<p>FOLIAR APPLICATION: 100mℓ/ha</p>	<p><b>PREVENTIVE / EARLY CORRECTIVE APPLICATION:</b></p> <ul style="list-style-type: none"><li>• Apply <b>PREVATHON™</b> in 500-1000ℓ of water per hectare. Good coverage of all foliage is essential.</li><li>• Apply as soon as the first symptoms of infestation (mines) appear on the leaves or when the presence of moths is observed. The presence of these moths in and around the foliage is normally a good indication that an infestation will take place.</li><li>• Timing of subsequent applications should be based on regular scouting of potato fields.</li><li>• <b>PREVATHON™</b> can be applied in an 8 to 14 day interval programme under conditions of continuous re-infestation. Use the shorter interval early in the growth season when plants are actively growing.</li><li>• Do not exceed 3 applications in total per season with <b>PREVATHON™</b> including application for the control of potato leaf miner (see below). The alternation of <b>PREVATHON™</b> with products having a different mode of action is recommended. Apply 2 to 3 <b>PREVATHON™</b> applications consecutively (= block application) before going over to products with other modes of action e.g. <b>STEWARD® /AVAUNT® 150 EC</b>.</li><li>• <b>PREVATHON™</b> will also control African bollworm (<i>Helicoverpa armigera</i>) larvae. For details on the corrective application of <b>PREVATHON™</b> against this pest refer to the recommendations for American bollworm control in tomatoes on this label</li><li>• Most beneficial insects and predatory mites are unaffected by applications of <b>PREVATHON™</b>.</li><li>• Ridge at least twice during growing season.</li><li>• Late applications of <b>PREVATHON™</b> once the potato plant's foliage is dying down will not lead to proper control of potato tuber moth larvae.</li><li>• <b>The addition of an adjuvant e.g. Trend 90 or Villa 51 at 75 ml/100ℓ of spray mixture, H&amp;R Crop Oil at 500ml/ha or Break-Thru at 250ml/ha, is recommended to improve coverage.</b></li><li>• <b>The potato crop can be harvested at any time following PREVATHON™ application.</b></li><li>• For maximum <b>PREVATHON™</b> applied per season in potatoes refer to potato leaf miner recommendations on this label.</li></ul>
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CROP/PEST	APPLICATION RATE	RECOMMENDATIONS/REMARKS
<p><b>POTATOES (CONT.):</b>            Potato Leaf Miner  <i>(Liriomyza huidobrensis)</i> &amp;            Potato tuber moth (larvae)  <i>Phthorimaea operculella</i></p>	<p>FOLIAR APPLICATION:            150-200ml/ha</p>	<p><b>PREVENTIVE / EARLY CORRECTIVE APPLICATION:</b></p> <ul style="list-style-type: none"> <li>• Apply <b>PREVATHON™</b> in 500-1000ℓ of water per hectare. Good coverage of all foliage is essential.</li> <li>• Apply the higher dosage of <b>PREVATHON™</b> when applied early correctively under high pest pressure. Apply the lower dosage rate of <b>PREVATHON™</b> for subsequent applications when applied in a regular 7 day spray program.</li> <li>• Commence <b>PREVATHON™</b> applications as soon as the puncture marks (the first signs of infestation) appear on the leaves (normally on the bottom leaves).</li> <li>• <b>PREVATHON™</b> must be applied in a 7 day interval spray program under conditions of continuous re-infestation of potato leaf miner.</li> <li>• Do not exceed 3 applications per season in total with <b>PREVATHON™</b>. The alternation of <b>PREVATHON™</b> with products having a different mode of action is recommended. Apply 2 to 3 <b>PREVATHON™</b> applications consecutively (= block application) before going over to products with are registered and effective against potato leafminer.</li> <li>• <b>PREVATHON™</b> will also control American bollworm (<i>Helicoverpa armigera</i>) larvae. For details on the corrective application of <b>PREVATHON™</b> against this pest refer to the recommendations for American bollworm control in tomatoes on this label.</li> <li>• Most beneficial insects and predatory mites are unaffected by applications of <b>PREVATHON™</b>.</li> <li>• <b>The addition of an adjuvant e.g. Trend® 90 or Villa 51 at 75 ml/100ℓ of spray mixture, H&amp;R Crop Oil at 500ml/ha or Break-Thru at 250ml/ha is recommended to improve coverage.</b></li> <li>• <b>The potato crop can be harvested at any time following PREVATHON™ application.</b></li> <li>• <b>Do not exceed a maximum of 600ml/ha PREVATHON™ in total per season in potatoes.</b></li> </ul>

CROP/PEST	APPLICATION RATE	RECOMMENDATIONS/REMARKS
<p><b>TOMATOES:</b> Tomato semi-looper (larvae) <i>Chrysodeixis acuta</i></p> <p>and</p> <p>African bollworm (larvae) <i>Helicoverpa armigera</i></p>	<p>FOLIAR APPLICATION: 20mℓ/hℓ OR (200mℓ/ha for concentrated mist blower applications )</p>	<p><b>EARLY CORRECTIVE APPLICATION:</b></p> <ul style="list-style-type: none"> <li>• Apply in <b>PREVATHON™</b> 500-1500ℓ of water per hectare. Good coverage of all foliage is essential.</li> <li>• For reduced spray volume concentrated applications with mistblower apply <b>PREVATHON™</b> at a dosage rate of 200mℓ/ha in a minimum spray volume of 500ℓ spray mixture per hectare.</li> <li>• Apply <b>PREVATHON™</b> when the first larvae are observed - normally around the fruit set stage of the crop.</li> <li>• Regular scouting of tomato fields is essential to determine the timing of the first and subsequent applications if necessary.</li> <li>• <b>PREVATHON™</b> can be applied in an 8 to 14 day interval programme under conditions of continuous re-infestation. Use the shorter interval early in the growth season when plants are growing actively.</li> <li>• <b>PREVATHON™ applied in a 7 day spray interval program will result in a 50-80% reduction of American Leaf Miner (<i>Liriomyza trifolii</i>) under low to medium pest pressure. Under high American Leaf Miner pressure alternate PREVATHON™ with a product specifically registered and effective against the pest.</b></li> <li>• Do not exceed 3 applications per season in total of <b>PREVATHON™</b>. The alternation of <b>PREVATHON™</b> with products having a different mode of action (e.g. <b>STEWARD®/AVAUNT® 150 EC</b>) is recommended. Apply 2 to 3 of <b>PREVATHON™</b> applications consecutively (= block application) before going over to products with other modes of action e.g. e.g. <b>STEWARD®/AVAUNT® 150 EC</b>).</li> <li>• Most beneficial insects are unaffected by applications of <b>PREVATHON™</b>.</li> <li>• <b>The addition of an adjuvant / wetter e.g. Trend® 90, Villa 51, Sortie or Entree at 50mℓ/100ℓ of spray mixture is recommended to improve coverage.</b></li> <li>• <b>Tomatoes can be harvested 1 day after application.</b></li> <li>• <b>Do not exceed a maximum of 600mℓ/ha PREVATHON™ in total per season in tomatoes.</b></li> </ul>

#### ACKNOWLEDGEMENT OF REGISTERED PRODUCTS:

- H & R Crop Oil is the registered product of H & R South Africa Sales (Pty) Ltd
- Break-Thru is the registered product of Evonik Degussa Africa (Pty) Ltd
- Entrée is the registered product of Miller Chemicals SA (Pty) Ltd
- Bladbuff 5 is the registered product of Plaaskem (Pty) Ltd
- Villa 51 is a registered product of Villa Crop Protection (Pty) Ltd