PREVATHON® 5 SC

SOUTH AFRICA Registration Number L9150 Act No. 36 of 1947 NAMIBIA Registration Number N-AR 1757 BOTSWANA Registration Number W130933 MALAWI Registration Number MW/PCB/2018/0908

A suspension concentrate stomach and contact insecticide for the control of fall armyworm in maize, sweet corn and sorghum, potato tuber moth, potato leaf miner, fall armyworm and tomato leaf miner moth in potatoes; tomato semi-looper, African bollworm and tomato leaf miner moth in tomatoes; tomato leaf miner moth in eggplant, tomato leaf miner moth in Tobacco and African bollworm in barley, canola, oats and wheat. SUID AFRIKA Registrasie nommer L9150 Wet Nr. 36 van 1947 NAMIBIË Registrasie nommer N-AR 1757 BOTSWANA Registrasie nommer W130933 MALAWI Registrasie Nommer MW/PCB/2018/0908

'n Suspensie konsentraat maag en kontak vir insekdoder die beheer van herfs kommandowurm in mielies, suikermielies en sorghum, aartappelmot, aartappel bladmyner, herfs kommandowurm en tamatie bladmyner mot in aartappels; tamatievalslandmeter, Afrika bolwurm en tamatie bladmyner mot in tamaties; tamatie bladmyner mot in eiervrug, tamatie bladmyner mot in tabak en Afrika bolwurm in canola, gars, hawer en korina.

INSECTICIDE GROUP CO	DDE 28 INSE	KDODER GROEP KODE	
ACTIVE INGREDIENT chlorantraniliprole (anthranilic diamide)	51.7 g/ℓ	AKTIEWE BESTANDI chlorantranil (antraniliese dia	iprool
Net Volume 100 me	, 250 mℓ, 500 mℓ, 1 ℓ	, & 3 ℓ Netto Vo	lume
REGISTERED BY / GEREGISTREER DEUR: FMC Chemicals (Pty) Ltd Co. Reg. No.: 1988/001451/07 P O Box / Posbus 44 Postnet Menlyn Waterkloof Glen 0181		For any emergency or poisonir contact: Griffon Poison Information Centro hrs) +27-(0)-82-446-8946	
BATCH NUMBER DATE MANUFACTURED		LOTNOM DATUM VERVAA	
ı	JN No. / VN Nr.	3082	
Copyright © FMC, All rights reserved. ® is a trademark of FMC Corporation or an affiliate.			



WARNINGS:

WITHHOLDING PERIODS:

• The following minimum number of days (withholding periods) between last application and harvest must be adhered to:

Barley	1 day
Canola	1 day
Eggplant	1 day
Maize	7 days
Oats	1 day
Sorghum	14 days
Sweet corn	7 days
Tomatoes	1 day
Tobacco	28 days
Wheat	1 day

- 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.
- This product is toxic to silkworms. Do not allow product to drift to silkworms production areas or mulberry orchards. To avoid harm, caution must be used in areas where desirable non-target species may be present.
- 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.

FIRST AID MEASURES:

General advice:

Never give anything by mouth to an unconscious person.

Inhalation:

No hazards which require special first aid measures. Consult a physician after significant exposure.

Skin contact:

No hazards which require special first aid measures. If on skin, rinse well with water. Wash contaminated clothing before re-use.

Eye contact:

Hold eye open and rinse slowly and gently with water for 15-20 minutes. If eye irritation persists, consult a specialist.

Ingestion:

No hazards which require special first aid measures. Consult a physician if necessary.

RESISTANCE STATEMENT:

PREVATHON® 5 SC contains chlorantraniliprole, a Group 28 insecticide, based on the international IRAC* Mode of Action classification. Repeated and exclusive use of **PREVATHON® 5 SC** or other Group 28 Insecticides may create resistant insect populations. Follow these recommendations to prevent or delay the development of insecticide resistance to **PREVATHON® 5 SC**:

- As a guideline do not apply more than 2 applications of **PREVATHON® 5 SC** per season for any crop. Please refer to "directions for use" for specific crop and pest applications.
- Apply PREVATHON[®] 5 SC or other Group 28 insecticides using a "window" approach to avoid exposure of multiple successive pest generations to the same mode of action. A window is defined as the period of residual activity with insecticides of the same mode of action within an approximate 30 day period.
- Two successive applications of **PREVATHON® 5 SC** may be made within a treatment window to protect new growth or control high pest populations.
- Following a window of use with **PREVATHON**[®] **5 SC** or other Group 28 insecticides, rotate to a window using effective insecticides with a different mode of action.
- The period between group 28 "treatment windows" should be at least 60 days starting from the last application of group 28 insecticides.
- Incorporate IPM practices (cultural and biological control) into the pest management program.
- Monitor insect populations for loss of field efficacy.

- Target the most sensitive life stage of the pest, typically small larvae.
- If you experience difficulty with control, and resistance is a reasonable cause, immediately consult your local company representative or agricultural advisor for the best alternate method of control for your

area.

*IRAC - Insecticide Resistance Action Committee. For additional information on insect resistance visit the web at <u>http://www.irac-online.org</u>.

GENERAL INFORMATION:

PREVATHON[®] 5 SC 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[®] 5 SC is active as a larvicide through ingestion (stomach action) and through cuticular absorption (contact action).

PREVATHON[®] 5 SC controls mainly Lepidopteran insect pests, but also some insect pests in other Orders e.g. Coleoptera, Diptera etc. Applications of PREVATHON^{TM®} 5 SC 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:

PREVATHON® 5 SC has good rainfastness when exposed to rainfall or sprinkler irrigation and the expected residual activity of the product should not be adversely affected.

SPRAY DRIFT MANAGEMENT:

Special care must be taken to avoid spray drifts outside the target area, or onto ponds, waterways or ditches. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly or under unfavourable environmental conditions. It is the responsibility of the applicator to determine that a sprayer is suitable for the intended application, is configured properly, and that a drift is not occurring.

DIRECTIONS FOR USE:

USE ONLY AS DIRECTED

COMPATIBILITY:

The compatibility of **PREVATHON® 5 SC** has not been fully investigated. **PREVATHON® 5 SC** is compatible with **Tanos**® (Reg. No. L6564 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 7** (Reg. No. L8121, Act No. 36 of 1947) & **Bladbuff 12** (Reg. No. L8201 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 **FMC** representative.

It is recommended that users premix a small quantity of a desired tank mixture containing **PREVATHON® 5 SC** 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® 5 SC**. Fill spray tank ¼ to ½ full with clean water. Add the required amount of **PREVATHON® 5 SC** directly into the tank and fill with water whilst stirring constantly.

TANK MIXING SEQUENCE:

Add different formulation types in the sequence indicated below*. Allow time for complete mixing and dispersion after addition of each product.

- 1. Water soluble bag.
- 2. Water dispersible granules for example Tanos®
- 3. Wettable powders.
- 4. **PREVATHON® 5 SC** and other water based suspension concentrates.
- 5. Water-soluble concentrates.
- 6. Oil based suspension concentrates.
- 7. Emulsifiable concentrates.
- 8. Adjuvants, surfactants, oils.
- 9. Soluble fertilizers.
- 10. Drift retardants.

* Unless otherwise specified by manufacturer directions for use or by local experience.

MAXIMUM RESIDUE LEVELS

Maximum Residue Levels (MRL) and Import tolerances for crops treated with **PREVATHON® 5 SC** may be pending in some countries. Consult with your exporter or local distributor before applying **PREVATHON® 5 SC** to export crops.

APPLICATION:

Soil Applications:

PREVATHON® 5 SC must be applied in a manner that ensures the product is in the root zone. **PREVATHON® 5 SC** must be in the root zone to provide effective control of target pests. **PREVATHON® 5 SC** is most effective when it is applied so that the roots are at or near the site of application; manage irrigation so that significant quantities of **PREVATHON® 5 SC** remain in the root zone where it is most effective.

Transplant water treatment:

Transplants should be adequately watered before transplanting. Apply at transplanting in a minimum of 50 ml of treatment solution per transplant. Ensure water volume is sufficient to thoroughly wet the root zone. Refer to the Resistance Management section of this label for further guidance on follow-up treatments.

Foliar Applications:

Apply **PREVATHON® 5 SC** 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® 5 SC** can be applied either as high volume full cover application or reduced volume mistblower application in a minimum 500 litres spray mixture per hectare.

CROP/PEST	APPLICATION RATE	RECOMMENDATIONS/REMARKS
BARLEY & OATS: African bollworm (larvae) Helicoverpa armigera	FOLIAR APPLICATION (GROUND): 600 ml/ha	 EARLY CORRECTIVE APPLICATION: Apply PREVATHON® 5 SC at the beginning of infestation, when the first bollworm eggs, or small larvae are observed. A second application of PREVATHON® 5 SC must be applied 7 days later, under conditions of continuous reinfestation. Do not exceed 2 applications per season in total of PREVATHON® 5 SC. The alternation of PREVATHON® 5 SC with products having a different mode of action (e.g. STEWARD® 150 EC or STEWARD®) is recommended. Allow 1 day between last PREVATHON® 5 SC application and harvest. The emergency registration on Barley & Oats for control of African Bollworm is based on limited and/or restricted data and experience on efficacy and crop safety. Therefore, use is at the sole risk and responsibility of the applicator. Applicators are strongly advised to test spray a small area before using it in a large scale and/or large area.
CANOLA: African bollworm (larvae) <i>Helicoverpa armigera</i>	FOLIAR APPLICATION (GROUND): 600 ml/ha	 EARLY CORRECTIVE APPLICATION: Apply PREVATHON® 5 SC at the beginning of infestation, when the first bollworm eggs, or small larvae are observed. A second application of PREVATHON® 5 SC must be applied 7 days later, under conditions of continuous reinfestation. Do not exceed 2 applications per season in total of PREVATHON® 5 SC. The alternation of PREVATHON® 5 SC with products having a different mode of action (e.g. STEWARD® 150 EC or STEWARD®) is recommended. Allow 1 day between last PREVATHON® 5 SC application and harvest. The emergency registration on Canola for control of African Bollworm is based on limited and/or restricted data and experience on efficacy and crop safety. Therefore, use is at the sole risk and responsibility of the applicator. Applicators are strongly advised to test spray a small area before using it in a large scale and/or large area.

EGGPLANT: Tomato leaf miner moth (larvae) <i>Tuta absoluta</i> NOTE: Tomato leaf miner moth (<i>Tuta absoluta</i>) is a very destructive pest with the main host being tomatoes and can potentially occur through all the production areas of South Africa.	FOLIAR APPLICATION: 80 ml/hl OR (800 ml/ha for concentrated mist blower applications)	 EARLY CORRECTIVE APPLICATION: Apply PREVATHON[®] 5 SC in 500-1500 l of water per hectare. Good coverage of all foliage is essential. For reduced spray volume concentrated applications with mistblower apply PREVATHON[®] 5 SC at a dosage rate of 800 ml/ha in a minimum spray volume of 500 l spray mixture per hectare. For best leaf and fruit protection apply PREVATHON[®] 5 SC during egg-laying or when first erosions are visible on younger leaves. Please see important notes below.
---	---	---

IMPORTANT NOTES ON THE CONTROL OF TOMATO LEAF MINER MOTH LARVAE ON EGGPLANT:

- Regular scouting of eggplant fields is essential to determine the timing of the first and subsequent applications if necessary.
- **PREVATHON® 5 SC** can be applied in a 7 day spray interval programme under conditions of continuous reinfestation.
- Do not exceed 3 applications per season in total of PREVATHON[®] 5 SC. The alternation of PREVATHON[®] 5 SC with products having a different mode of action (e.g. STEWARD[®] 150 EC) is recommended. Apply 2 of PREVATHON[®] 5 SC applications consecutively (= block application) before going over to products with other modes of action e.g. e.g. STEWARD[®] 150 EC).
- Most beneficial insects are unaffected by applications of **PREVATHON® 5 SC**.
- The addition of an adjuvant / wetter e.g. Trend[®] 90, Villa 51, or Entree at 50 mℓ/100 ℓ of spray mixture is recommended to improve coverage.
- Eggplant can be harvested 1 day after application.
- Do not exceed a maximum of 2400 ml/ha PREVATHON[®] 5 SC in total per season in eggplant.

CROP/PEST	APPLICATION RATE	RECOMMENDATIONS/REMARKS
MAIZE & SWEETCORN: Fall Armyworm (larvae) Spodoptera frugiperda	FOLIAR APPLICATION (GROUND): 600 ml/ha	 Apply PREVATHON® 5 SC in a volume of 450 L water per hectare. Apply at the beginning of infestation, at the first signs of damage, when no more than 5% of the plants have symptoms of scraped leaves. Application is NOT recommended for control of worms (larvae) larger than 1 cm. Apply at a 14 day interval. Do not exceed 2 applications per season in total of PREVATHON® 5 SC. The alternation of PREVATHON® 5 SC with products having a different mode of action (e.g. STEWARD® 150 EC) is recommended. The addition of a suitable adjuvant, such as H&R Crop oil at the registered rates, may enhance efficacy. Allow 7 days between last PREVATHON® 5 SC application and harvest.

IMPORTANT NOTES APPLICABLE TO FALL ARMYWORM CONTROL WITH PREVATHON® 5 SC IN MAIZE:

- Apply at the beginning of infestation, at the first signs of damage, when no more than 5% of the plants have symptoms of scraped leaves.
- Application is NOT recommended for control of worms (larvae) larger than 1 cm.
- NB: Application must be done before larvae migrate into the cobs of the maize plants. Larvae that are already deep within the beard or have migrated into the cobs will not be controlled.

CROP/PEST	APPLICATION RATE	RECOMMENDATIONS/REMARKS
POTATOES:	FOLIAR APPLICATION:	EARLY CORRECTIVE APPLICATION:
Potato tuber moth (larvae) Phthorimaea operculella	400 mť/ha	 Apply PREVATHON[®] 5 SC in 500-1000 <i>l</i> of water per hectare. Good coverage of all foliage is essential. 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. Timing of subsequent applications should be based on regular scouting of potato fields. PREVATHON[®] 5 SC can be applied in an 8 to 14 day interval programme under conditions of continuous reinfestation. Use the shorter interval early in the growth season when plants are actively growing. Do not exceed 3 applications in total per season with PREVATHON[®] 5 SC with products having a different mode of action is recommended. Apply 2 PREVATHON[®] 5 SC applications consecutively (= block application) before going over to products with other modes of action e.g. STEWARD[®] 150 EC. PREVATHON[®] 5 SC will also control African bollworm (<i>Helicoverpa armigera</i>) larvae. For details on the corrective applications of PREVATHON[®] 5 SC. Ridge at least twice during growing season. Late applications of PREVATHON[®] 5 SC. Ridge at least twice during growing season. Late applications of PREVATHON[®] 5 SC once the potato plant's foliage is dying down will not lead to proper control of potato tuber moth larvae. The addition of an adjuvant e.g. Trend[®] 90, Villa 51, H&R Crop Oil or Break-Thru at registered rates is recommended to improve coverage. The potato crop can be harvested at any time following PREVATHON[®] 5 SC application. For maximum PREVATHON[®] 5 SC applied per season in potatoes refer to potato leaf miner recommendations on this label.

CROP/PEST	APPLICATION RATE	RECOMMENDATIONS/REMARKS
POTATOES: (continue)Potato Leaf Miner Liriomyza huidobrensisTomato Leaf miner moth Tuta absolutaFall armyworm 	FOLIAR APPLICATION: 600-800 ml/ha	 EARLY CORRECTIVE APPLICATION: Apply PREVATHON[®] 5 SC in 500-1000 <i>l</i> of water per hectare. Good coverage of all foliage is essential. Apply the higher dosage of PREVATHON[®] 5 SC when applied early correctively under high pest pressure. Apply the lower dosage rate of PREVATHON[®] 5 SC for subsequent applications when applied in a regular 7 day spray program. LEAFMINERS: Commence PREVATHON[®] 5 SC applications as soon as the puncture marks (the first sighs of infestation) appear on the leaves (normally on the bottom leaves). ARMYWORM: Apply at the beginning of infestation, at the first signs of damage, when no more than 5% of the plants shows signs of damage. Application is NOT recommended for control of worms (larvae) larger than 1 cm. Worms (larvae) that have tunnelled into the stems and spuds will not be controlled. PREVATHON[®] 5 SC. The alternation of PREVATHON[®] 5 SC with products having a different mode of action is recommended. Apply 2 PREVATHON[®] 5 SC applications consecutively (= block application) before going over to products with are registered. PREVATHON[®] 5 SC will also control African bollworm (<i>Helicoverpa armigera</i>) larvae. For details on the corrective application of PREVATHON[®] 5 SC. The addition of an adjuvant e.g. Trend[®] 90, Villa 51, H&R Crop Oil or Break-Thru at registered rates is recommended to improve coverage. The potato crop can be harvested at any time following PREVATHON[®] 5 SC application.

CROP/PEST	APPLICATION RATE	RECOMMENDATIONS/REMARKS
SORGHUM: Fall Armyworm (larvae) Spodoptera frugiperda	FOLIAR APPLICATION (GROUND): 600 ml/ha	 Apply PREVATHON® 5 SC in a volume of 250 - 400 L water per hectare. Apply at the beginning of infestation, at the first signs of damage, when no more than 5% of the plants have symptoms of scraped leaves. Application is NOT recommended for control of worms larger than 1 cm. Apply at a 14 day interval. Do not exceed 2 applications per season in total of PREVATHON® 5 SC. The alternation of PREVATHON® 5 SC with products having a different mode of action (e.g. STEWARD® 150 EC) is recommended. Allow 14 days between last PREVATHON® 5 SC application and harvest.
TOBACCO: Tomato leaf miner moth <i>Tuta absoluta</i>	DRENCH TREATMENT AT TRANSPLANTING: 0.12 ml per plant in 50 ml (transplant water) OR 24 ml/10 ℓ water (200 plants with 50 ml/plant)	 DO NOT EXCEED 2 APPLICATIONS OF PREVATHON[®] 5 SC PER SEASON. USE EITHER ONE DRENCH, ONE DRENCH AND ONE FOLIAR TREATMENT OR TWO FOLIAR TREATMENTS PER SEASON. <u>DRENCH:</u> After transplanting into the field during the establishment phase of tobacco. Planting soil must be at field capacity at planting. Apply PREVATHON[®] 5 SC as a drench application at a rate of 50 ml water per plant. Treatment should be within 1 (one) day of transplanting Most beneficial insects and predatory mites are unaffected by applications of PREVATHON[®] 5 SC. The addition of a buffer like Bladbuff is recommended to improve the quality of the treatment water. Use the registered Bladbuff rate needed for the water pH to be treated.

CROP/PEST	APPLICATION RATE	RECOMMENDATIONS/REMARKS
TOBACCO: Tomato leaf miner moth <i>Tuta absoluta</i> (Continue)	DRENCH TREATMENT AT TRANSPLANTING FOLLOWED BY FOLIAR TREATMENT:	DO NOT EXCEED 2 APPLICATIONS OF PREVATHON [®] 5 SC PER SEASON. USE EITHER ONE DRENCH, ONE DRENCH AND ONE FOLIAR TREATMENT OR TWO FOLIAR TREATMENTS PER SEASON. 2. <u>DRENCH + FOLIAR:</u>
	DRENCH APPLICATION: 0.12 ml per plant in 50 ml (transplant water) OR 24 ml/10 { water (200 plants with 50 ml/plant)	 A. DRENCH (Transplant water treatment) : After transplanting into the field during the establishment phase of tobacco. Planting soil must be at field capacity at planting. Apply PREVATHON[®] 5 SC as a drench application at a rate of 50 ml water per plant. Treatment should be within 1 (one) day of transplanting Most beneficial insects and predatory mites are unaffected by applications of PREVATHON[®] 5 SC. The addition of a buffer like Bladbuff is recommended to improve the quality of the treatment water. Use the registered Bladbuff rate needed for the water pH to be treated.
	FOLIAR APPLICATION: 800 ml/ha	 <i>B. FOLIAR:</i> Apply PREVATHON[®] 5 SC as a foliar application at 250–300 <i>l</i> spray mixture per hectare. Follow a preventive spray programme at all times. The foliar application of PREVATHON[®] 5 SC application must be done 4 – 5 weeks after the transplanting treatment. Use the shorter interval under conditions of heavy infestation pressure. Apply directed as a band application over the top of the plants making sure that all the foliage is thoroughly covered, especially the lower third of the plants, as this is where leaf miner infestation is most severe. After these two PREVATHON[®] 5 SC applications switch over to insecticides with a different mode of action. Most beneficial insects and predatory mites are unaffected by applications of PREVATHON[®] 5 SC . The addition of a buffer like Bladbuff is recommended to improve the quality of the treatment water. Use the registered Bladbuff rate needed for the water pH to be treated.

CROP/PEST	APPLICATION RATE	RECOMMENDATIONS/REMARKS
TOBACCO:	FOLIAR APPLICATION:	3. TWO FOLIAR APPLICATIONS
Tomato leaf miner moth <i>Tuta absoluta</i> (Continue)	800 ml/ha	 Apply PREVATHON[®] 5 SC as a foliar application at 250–300 l spray mixture per hectare. Follow a preventive spray programme at all times. Apply both applications, directed as band applications, over the top of the plants making sure that all the foliage is thoroughly covered, especially the lower third of the plants, as this is where leaf miner infestation is most severe. Increase the spray volume as the plants grow. Do not exceed 2 PREVATHON[®] 5 SC applications per season. Apply 2 PREVATHON[®] 5 SC applications consecutively (= block application) before going over to insecticides with other modes of action. Most beneficial insects and predatory mites are unaffected by applications of PREVATHON[®] 5 SC . The addition of a buffer like Bladbuff is recommended to improve the qualiy of the treatment water. Use the registered Bladbuff rate needed for the water pH to be treated.

IMPORTANT NOTES ON THE CONTROL OF TOMATO LEAF MINER MOTH ON TOBACCO:

TRANSPLANT WATER TREATMENT (DRENCH):

- Planting soil must be at Field capacity during planting of the transplants. Transplants must also be watered before planting.
- **PREVATHON**[®] **5 SC** must be applied in a manner that ensures the product is in the root zone to provide effective control of target pests.
- **PREVATHON® 5 SC** is most effective when it is applied so that the roots are at or near the site of application; manage irrigation so that significant quantities of **PREVATHON® 5 SC** remain in the root zone where it is most effective.
- Apply at transplanting in a minimum of 50 ml of treatment solution per transplant. Ensure water volume is sufficient to thoroughly wet the root zone.
- Refer to the Resistance Management section of this label for further guidance on follow-up treatments.

FOLIAR APPLICATION:

- Regular scouting of tobacco fields is essential to determine the timing of the first and subsequent applications if necessary.
- Do not exceed 2 applications per season in total of PREVATHON[®] 5 SC. The alternation of PREVATHON[®] 5 SC with products having a different mode of action (e.g. STEWARD[®] 150 EC) is recommended. Apply 2 PREVATHON[®] 5 SC applications consecutively (= block application) before going over to products with other modes of action e.g. STEWARD[®] 150 EC).
- Most beneficial insects are unaffected by applications of **PREVATHON® 5 SC**.
- The addition of a buffer like Bladbuff is recommended to improve the quality of the treatment water. Use the registered Bladbuff rate needed for the water pH to be treated.
- Tobacco can be harvested 28 days after application.

CROP/PEST	APPLICATION RATE	RECOMMENDATIONS/REMARKS
TOMATOES: Tomato semi-looper (larvae) <i>Chrysodeixis acuta</i> and African bollworm (larvae) <i>Helicoverpa armigera</i>	FOLIAR APPLICATION: 80 ml/hl OR (800 ml/ha for concentrated mist blower applications)	 EARLY CORRECTIVE APPLICATION: Apply PREVATHON[®] 5 SC in 500-1500 <i>l</i> of water per hectare. Good coverage of all foliage is essential. For reduced spray volume concentrated applications with mistblower apply PREVATHON[®] 5 SC at a dosage rate of 800 m<i>l</i>/ha in a minimum spray volume of 500 <i>l</i> spray mixture per hectare. Apply PREVATHON[®] 5 SC when the first larvae are observed - normally around the fruit set stage of the crop. Please see important notes below.
TOMATOES: Tomato leaf miner moth (larvae) <i>Tuta absoluta</i> NOTE: Tomato leaf miner moth (<i>Tuta absoluta</i>) is a very destructive pest with the main host being tomatoes and can potentially occur through all the production areas of South Africa.	FOLIAR APPLICATION: 80 ml/hl OR (800 ml/ha for concentrated mist blower applications)	 EARLY CORRECTIVE APPLICATION: Apply PREVATHON[®] 5 SC in 500-1500 l of water per hectare. Good coverage of all foliage is essential. For reduced spray volume concentrated applications with mistblower apply PREVATHON[®] 5 SC at a dosage rate of 800 ml/ha in a minimum spray volume of 500 l spray mixture per hectare. For best leaf and fruit protection apply PREVATHON[®] 5 SC during egg-laying or when first erosions are visible on younger leaves. Please see important notes below.

IMPORTANT NOTES ON THE CONTROL OF TOMATO SEMI-LOOPER, AFRICAN-BOLLWORM AND TOMATO LEAF MINER MOTH LARVAE ON TOMATOES:

- Regular scouting of tomato fields is essential to determine the timing of the first and subsequent applications if necessary.
- **PREVATHON**[®] **5 SC** can be applied in an 8 to 14 day spray interval programme under conditions of continuous re-infestation of semi-looper and bollworm. Use the shorter interval early in the growth season when plants are growing actively. Use a 7 day spray interval for *Tuta absoluta*.
- PREVATHON[®] 5 SC applied in a 7 day spray interval program will result in in a 50-80% reduction of American Leaf Miner (*Liriomyza trifolli*) under low to medium pest pressure. Under high American Leaf Miner pressure alternate PREVATHON[®] 5 SC with a product specifically registered and effective against the pest.
- Do not exceed 3 applications per season in total of PREVATHON[®] 5 SC. The alternation of PREVATHON[®] 5 SC with products having a different mode of action (e.g. STEWARD[®] 150 EC) is recommended. Apply 2 of PREVATHON[®] 5 SC applications consecutively (= block application) before going over to products with other modes of action e.g. e.g. STEWARD[®] 150 EC).
- Most beneficial insects are unaffected by applications of **PREVATHON® 5 SC**.
- The addition of an adjuvant / wetter e.g. Trend[®] 90, Villa 51, or Entree at 50 mℓ/100 ℓ of spray mixture is recommended to improve coverage.
- Tomatoes can be harvested 1 day after application.
- Do not exceed a maximum of 2400 mℓ/ha PREVATHON[®] 5 SC in total per season in tomatoes.

CROP/PEST	APPLICATION RATE	RECOMMENDATIONS/REMARKS
WHEAT: African bollworm (larvae) <i>Helicoverpa armigera</i>	FOLIAR APPLICATION (GROUND): 600 ml/ha	 EARLY CORRECTIVE APPLICATION: Apply PREVATHON® 5 SC at the beginning of infestation, when the first bollworm eggs, or small larvae are observed. A second application of PREVATHON® 5 SC must be applied 7 days later, under conditions of continuous reinfestation. Do not exceed 2 applications per season in total of PREVATHON® 5 SC. The alternation of PREVATHON® 5 SC with products having a different mode of action (e.g. STEWARD® 150 EC or STEWARD®) is recommended. Allow 1 day between last PREVATHON® 5 SC application and harvest.

ACKNOWLEDGEMENT OF REGISTERED PRODUCTS:

- H & R Crop Oil (Reg. No. L6802, Act 36 of 1947) is the registered product of H & R South African Sales (Pty) Ltd
- Break-Thru (Reg. No. L6764, Act 36 of 1947) is the registered product of Evonik Degussa African (Pty) Ltd
- Entrée (Reg. No. L8055, Act 36 of 1947) is the registered product of Miller Chemicals SA (Pty) Ltd
- Bladbuff 7 (Reg. No. L8121, Act 36 of 1947) and Bladbuff 12 (Reg. No. L8201, Act 36 of 1947) are the registered product of Nulandis (Pty) Ltd
- Villa 51 (Reg. No. L8050, Act 36 of 1947) is a registered product of Villa Crop Protection (Pty) Ltd
- Trend®90 (Reg. No. L8207, Act 36 of 1947) and Steward®150 EC (Reg. No. L8435, Act 36 of 1947) are registered products of FMC Chemicals Pty. Ltd.