


CHIMERA 240 SC

Reg. no. L11186 Act/Wet 36 of/van 1947
W1301605

**READ THE LABEL BEFORE USE
KEEP OUT OF REACH OF CHILDREN AND ANIMALS**

GROUP	18	INSECTICIDE
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A suspension concentrate selective contact and stomach insecticide (moult accelerating compound) for the control of insect pests on crops as listed.	'n Suspensiekonsentraat selektiewe kontak- en maaginsektdoder (vervellingsversnellingsmiddel) vir die beheer van insekplae in gewasse soos aangedui.
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 DANGER	<p>Hazard statements Harmful if inhaled. Causes mild skin irritation. Causes serious eye damage. Suspected of damaging fertility or the unborn child. Toxic to aquatic life. Harmful to aquatic life with long lasting effects.</p> <p>Precautionary statements Avoid breathing dust/fume/gas/mist/ vapours/spray. Avoid release to the environment.</p>
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ACTIVE INGREDIENT/AKTIEWE BESTANDDEEL

methoxyfenozyde (diacylhidrazine) 240 g/L ... methoxyfenozyde (diasielhidrasien)

NET VOLUME/NETTO VOLUME

..... L

REGISTRATION HOLDER/REGISTRASIEHOUER

ADAMA South Africa (Pty) Ltd;
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IN CASE OF POISONING, CALL THE FOLLOWING NUMBERS:

Griffon Poison Information Centre:
+27 82 446 8946 or
Tygerberg Poison Information Centre:
+27 861 555 777

EMERGENCY NUMBER:

SPILL TECH: +27 86 100 6366 or +27 83 253 6618

UN no.: Not applicable

Batch number
Date of Manufacture
Expiry date

Lotnommer
Datum van Vervaardiging
Vervaldatum



GHS information

WARNINGS

- May cause an allergic skin reaction.
- Causes serious eye irritation.
- Suspected of causing cancer.
- Very toxic to aquatic life.

Withholding periods: Minimum time between the last application and harvest

Apples and pears	10 days
Apples (when mixed with emamectin benzoate 20% WG)	28 days
Avocados	30 days
Citrus	30 days
Lettuce	14 days
Litchis	30 days
Spinash	14 days
Tree nuts (Macadamia, pecans, almonds, pistachio and hazel nuts)	14 days

Note: Above withholding periods are based on local requirements for residue levels. Withholding periods may differ in other countries to which treated fruit may be sent.

- Handle with care.
- May cause skin and eye irritation.
- Poisonous by swallowing, inhalation and skin contact.
- Relatively harmless to bees and young bees.
- Relatively harmless to parasitoid, predatory insects and predatory mites.
- Toxic to fish and aquatic invertebrates.
- Store under lock and key in a cool, dry place, away from food, feeds, seed and fertilizers.
- Keep out of reach of children, uninformed persons and animals.
- Re-entry: Do not enter treated area until spray deposit has dried unless wearing protective clothing.
- In case of poisoning, take the patient to a doctor immediately and make this label available to him/her.

Although this remedy has been extensively tested under a large variety of conditions, the registration holder does not guarantee that it will be effective under all conditions. The activity 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 weeds against the remedy as well as by the method, time and accuracy of application. The registration holder furthermore does not accept responsibility for damage to crops, vegetation, and the environment or harm to humans or animals or for lack of performance of the remedy concerned due to failure by 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

- If exposed or concern get medical help.
- Obtain, read, and follow all safety instructions before use.
- Avoid breathing dust/fume/gas/mist/vapours/spray.
- Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
- Wash hands thoroughly after handling. Do not touch eyes.
- Avoid release to the environment.
- Use only outdoors or in a well-ventilated area.
- IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical help.
- IF INHALED: Remove person to fresh air and keep comfortable for breathing. Get medical help.
- If skin irritation occurs: Get medical help.
- Store locked up.
- Dispose of contents/ container to an approved waste disposal plant.

- Do not inhale spray mist or fumes.
- Avoid eye and skin contact.
- Wear protective overalls, rubber gloves, gumboots, and face shield when the concentrate is handled and during mixing.
- Wash with soap and water after use and accidental skin contact.
- Wash contaminated clothing after use.
- Do not eat, drink or smoke whilst mixing or applying the product or before washing hands and face and change of clothing.
- Avoid excessive drift - do not treat if wind velocity exceeds 2 meters per second (7 km per hour).
- Prevent drift onto other crops, grazing, rivers, dams, or areas not under treatment.
- Thoroughly clean spraying equipment directly after use and dispose of wash water where it will not contaminate food, grazing, boreholes, rivers, or dams.

- Containers and packages must be completely emptied before being disposed of. Shake out thoroughly into the applicator and destroy the empty container thereafter in the described manner.
- Triple rinse empty containers in the following manner: Invert the empty container over the spray or mixing tank and allow to drain for at least 30 seconds after the flow has slowed down to a drip. Thereafter rinse the empty container three times in succession with one quarter on the container volume fresh water and decant the rinsate into the spray or mixing tank. Puncture the triple rinsed container and dispose of via an approved collector or recycler (www.croplife.co.za).
- Do not bury or donate the container to any other parties that may use it as a container for food or beverages.
- Prevent contamination of food, feed, drinking water and eating utensils.
- Store in original labelled container only.

RELEVANT SUBSTANCES

Chemical name	w/w %	CAS no.
Methoxyfenozide	10 – 30%	161050-58-4
Propane-1,2-diol	<10%	58161-11-8
Sodium Dodecyl Sulfate	<10%	151-21-3
Naphthalenesulfonic acid, sodium salt, polymer with formaldehyde	<10%	9084-06-4
Dimethylpolysiloxane	<10%	63148-62-9
Xanthan gum	<10%	11138-66-2

FIRST AID

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). First aider: Pay attention to self-protection.

Eye contact: Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist.

Skin contact: Carefully remove contaminated clothing. Wash affected area with soap and water. Seek medical aid if at all worried.

Inhalation: Move person to fresh air. If person is not breathing, call an emergency responder or ambulance, and then give artificial respiration; if by mouth-to-mouth use rescuer protection (pocket mask etc). Call a poison control center or doctor for treatment advice.

Ingestion: If swallowed, wash out mouth with water. Do not induce vomiting. Keep patient at rest and seek medical advice, as follow.

TOXICOLOGICAL INFORMATION

Antidotes

No specific antidote.

Advice to doctors

If poisoning occurs, immediately contact a doctor, and follow the advice given. Show this Material Safety Data Sheet to a doctor.

NOTICE TO THE USER: This agricultural remedy is to be used only according to the directions of this label. It is an offense under the Act to use this product inconsistent with the directions on the label.

RESISTANCE WARNING

CHIMERA 240 SC is a group code 18 insecticide. Any insect population may contain individuals naturally resistant to **CHIMERA 240 SC** and other group code 18 insecticides. The resistant individuals can eventually dominate the insect population if these insecticides are used repeatedly and exclusively in programs. **CHIMERA 240 SC** or any other group code 18 insecticides may not control these resistant insects.

To delay insecticide resistance:

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

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

INTEGRATED PEST MANAGEMENT (IPM) PROGRAMME

- **CHIMERA 240 SC** can be recommended for IPM programmes in apple, pear and citrus crops. **CHIMERA 240 SC** should be applied as preventative sprays when field scouting and/or monitoring indexes indicates that the target pest will reach economic thresholds. The best positioning of **CHIMERA 240 SC** applications is at the beginning of peak moth flight or before egg hatch where degree day models are followed (e.g., codling moth) or before egg hatch of peak moth flights. This will ensure that the majority of eggs are laid on treated surfaces and emerging larvae are exposed to **CHIMERA 240 SC** before any damage is caused.
- **A maximum of 2 sprays per season** are allowed for control of codling moth and false codling moth in pome and citrus fruit.
- **CHIMERA 240 SC** is a selective insecticide and only controls the larval stage of insects of the Lepidoptera group. **CHIMERA 240 SC** used under GAP, does not have a significant impact on certain parasitic or predaceous insects and mites, including ladybirds, lacewings, assassin bugs, predatory mites, etc.
- If **CHIMERA 240 SC** is tank mixed with any insecticide that reduces its selectivity in preserving beneficial predatory insects, then the full benefit of **CHIMERA 240 SC** to the IPM programme may be reduced.

MODE OF ACTION

18: Ecdysone Receptor Agonists - Mimic the moulting hormone, ecdysone, inducing a precocious moult.

- **CHIMERA 240 SC** is a moulting acceleration product and is most effective. After being ingested by young larvae, it also has good ovicidal effect, but minimal contact effect on older larvae. The active ingredient methoxyfenozide, mimics the action of the moulting hormone of lepidopterous larvae (L1 – L2 stages), and differs from other insect growth regulators like chitin-biosynthesis-inhibitors or juvenile-hormone mimic products. Upon ingestion, larval stages of the order Lepidoptera undergo an incomplete and developmentally lethal premature molt. After ingestion larvae cease feeding within 4–8 hours. The larvae die on account of their inability to feed and complete the molting process.
- This mode of action therefore requires thorough spray coverage of the plant surface with **CHIMERA 240 SC**.
- pH: **CHIMERA 240 SC** is stable in a water suspension with a pH of 4–9.

Mixing instructions

Fill the spray tank with water to about half of the total spray volume required. Start agitation and add the required amount of **CHIMERA 240 SC** to the spray tank. Continue mixing and agitation while filling the spray tank to the required spray volume. Maintain sufficient agitation during application to ensure uniformity of the spray mix. Do not allow water or spray mixture to back-siphon into the water source.

Tank mixing

CHIMERA 240 SC is compatible with fungicides and insecticides normally used on apples, pears, citrus and other crops.

- Before tank mixing **CHIMERA 240 SC** with other products, a compatibility test (jar test) using relative proportions of tank mix products should be conducted prior to mixing in the spray tank.
- If foliar fertilisers are used, the compatibility test should be repeated with each batch of fertiliser utilising the mixing water source.
- Vigorous, continuous agitation during mixing, filling and throughout application is required for all tank mixes. Back flow sparger pipe agitators, at the bottom of the spray tank, generally provide the most effective agitation in spray tanks. To prevent foaming in the spray tank, avoid mixing air into the spray mixture.

Mixing sequences for tank mixes

Fill the spray tank with water to approximately one quarter of the total spray volume required. Start agitation. Add different formulation types in the order indicated below, allowing time for complete mixing and dispersion after addition of each product. Allow extra mixing and dispersion time for dispersible granule flowable (WG) products.

Add different formulation types in the following order:

1. Water dispersible granules (after pre-mixing with water)
2. Wettable powders (after pre-mixing with water)
3. **CHIMERA 240 SC** and other aqueous suspensions

Maintain agitation and fill spray tank to three-quarters of total spray volume.

Then add:

4. Emulsifiable concentrates
5. Foliar fertilizers

Continue filling the spray tank to the required volume while maintaining continuous agitation during mixing, final filling and throughout application. If spraying and agitation must be stopped before the spray tank is empty, settled materials must be resuspended before spraying is resumed. A back flow sparger agitator at the bottom of the tank is particularly useful for this purpose.

Premixing

Dispersible granule (WG) and wettable powder (WP) formulations may be pre-mixed with water (slurried) and added to the spray tank through a 20–35 mesh screen. This procedure assures good initial dispersion of these formulation types.

APPLICATION

Proper application techniques help ensure thorough spray coverage and the correct dosage necessary to obtain optimum control of insect pests. The following recommendations are provided for effective application of **CHIMERA 240 SC**. To ensure adequate spray coverage, attention should be given to ground speed and calibration, wind speed, and foliar canopy.

Application for fruit tree crops

Use conventional orchard spray equipment correctly calibrated to provide thorough coverage of the target crop and correct rate per ha.

Addition of adjuvants

If the surface of the fruit to be treated is waxy or difficult to wet, the use of a registered adjuvant at the registered rate is recommended.

CHIMERA 240 SC should be sprayed as a high volume (HV) application. On pome fruit rate per ha should preferably be calculated according to the formula for HVR, using “Unrath’s Formula” for “Tree Row Volume” (TRV).

$$RV \times 937 = \frac{\text{Tree Hight (TH)}^* \times \text{Tree Width (TW)}^* \times 937}{\text{Distance between Rows (RW)}} = \text{HVR in liters per ha}$$

*(Tree height and tree width should be measured during summer when trees are in full flush.)

Directions for Application Volumes (AV) at different growth stages and the calculation of rate per ha, based on High Volume Requirements (HVR)

Growth Stage	Application Volume
Bud break to full blossom	60% x HVR
75% petal fall to one month later (mid-season)	80% x HVR
Mid-season to post harvest, before leaf drop	100% x HVR

$$\text{Rate per ha} = \frac{\text{HVR in L per ha} \times \text{rate per 100 L}}{100}$$

APPLICATION RATES

CROP AND PEST	DOSAGE (per 100 L water)	REMARKS
<p>Apples and pears Codling moth (<i>Cydia pomonella</i>)</p>	<p>60 ml CHIMERA 240 SC</p> <p>Or</p> <p>60 ml CHIMERA 240 SC/100 L + 5 g emamectin benzoate 20% WG</p>	<p>Apply CHIMERA 240 SC as a high volume, full cover application. Thorough coverage is essential.</p> <p>Start applications of CHIMERA 240 SC at the beginning of a moth generation, or in the case of the first generation, at 75% petal fall and repeat at 14-day intervals for a maximum of 2 consecutive applications. To comply with resistance management strategies, CHIMERA 240 SC should not be used in total more than two (2) times per season on any apple or pear orchard. Other registered products should be used for treatment of the remainder of the spray programme.</p>

Important note: If **CHIMERA 240 SC** is applied for the control of the last generation of the season, then a product with a different mode of action must be used for control of the first generation in the following season.

Although **CHIMERA 240 SC** can be used on any generation of codling moth, the positioning of **CHIMERA 240 SC** will be determined by the specific control strategy that is followed. Although not necessarily, as a general guide **CHIMERA 240 SC** may be considered for use in the 2nd generation.



ADAMA

Listen - Learn - Deliver

CROP AND PEST	DOSAGE (per 100 L water)	REMARKS
<p>Citrus, avocados, litchis, tree nuts (macadamia, pecan, almonds, pistachio and hazelnuts)</p> <p>False codling moth (<i>Thaumatotibia leucotreta</i>)</p>	<p>60 ml CHIMERA 240 SC</p>	<p>Apply CHIMERA 240 SC as a high-volume application. Apply at 8 and 4 weeks prior to harvest or when infestations are expected to occur.</p>
<p>Resistance management: For control of false codling moth do not apply CHIMERA 240 SC in total more than two (2) times per season to any one block of crops. Alternate the use of CHIMERA 240 SC with registered insecticides with a different mode of action.</p>		
<p>Lettuce, spinach</p> <p>African/American Bollworm (<i>Helicoverpa armigera</i>)</p>	<p>60 ml in 100 L water (300 – 600 ml/ha) A registered wetter may be added if required</p>	<p>Apply as soon as pest is noticed as a full cover application at 500–1000 L/ha spray mixture. Apply a follow-up application if necessary.</p> <p>NOTE: As a single corrective application against bollworm, CHIMERA 240 SC is more effective against early instar larvae.</p> <p>Resistance management:</p> <p>For resistance management, CHIMERA 240 SC should not be applied in total more than three (3) times per season to any block of spinach.</p>