


SEIZER[®] 100 EC

Reg. no. L7471 Act/Wet 36 of/van 1947
N-AR 0782

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

| | | |
|--------------|-----------|--------------------|
| GROUP | 3A | INSECTICIDE |
|--------------|-----------|--------------------|

| | |
|---|--|
| An emulsifiable concentrate contact and stomach insecticide and acaricide for the control of pests in crops as indicated. | 'n Emulgeerbare konsentraat insek- en mytdoder met 'n kontak- en maagaksie vir die beheer van plae in gewasse soos aangedui. |
|---|--|

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|---|---|
|  DANGER | <p>Hazard statements Harmful if swallowed. May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye damage. May cause drowsiness or dizziness. May cause damage to organs through prolonged or repeated exposure. Very toxic to aquatic life with long lasting effects.</p> <p>Precautionary statements Wear protective gloves, eye and face protection. Avoid release to the environment.</p> |
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ACTIVE INGREDIENT/AKTIEWE BESTANDDEEL

Bifenthrin (pyrethroid)..... 100 g/LBifentrien (piretroïed)

NET VOLUME/NETTO VOLUME

..... L

REGISTRATION HOLDER/REGISTRASIEHOUER
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UN no.: 3082

EMERGENCY NUMBERS:

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

Batch number
Date of Manufacture
Expiry date

Lotnommer
Datum van Vervaardiging
Vervaldatum



WARNINGS

- Harmful if swallowed.
- May be fatal if swallowed and enters airways.
- Causes skin irritation.
- Causes serious eye damage.
- May cause drowsiness or dizziness.
- May cause damage to organs through prolonged or repeated exposure.
- Very toxic to aquatic life with long lasting effects.

Withholding periods (Minimum number of days between last application and harvest or grazing.):

| | |
|-----------------------------|---------|
| Cotton | 28 days |
| Maize (feeding)..... | 56 days |
| Potatoes | 21 days |
| Tomatoes | 5 days |

- Handle with care.
- Toxic to bees and wildlife.
- Store in a cool, dry place away from food and feed.
- **Re-entry:** Do not enter treated field within 1 day after application unless wearing protective clothing.
- In case of poisoning call a doctor and show him/her this label.
- **Aerial application:** Notify all inhabitants in the immediate vicinity of the area to be sprayed and issue the necessary warnings. Do not spray over or allow spray drift to contaminate adjacent areas not under treatment, rivers or dams.

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 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, and 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

- Keep out of reach of children.
 - Do not breathe dust/fume/gas/mist/vapours/spray.
 - Avoid release to the environment.
 - Use only outdoors or in a well-ventilated area.
 - Wear protective gloves, eye and face protection.
 - Wash face, hands and any exposed skin thoroughly after handling. Do not touch eyes.
 - Take off contaminated clothing and wash it before reuse.
 - Do not eat, drink or smoke when using this product.
 - Get medical help if you feel unwell.
 - IF SWALLOWED: Get emergency medical help immediately. Rinse mouth. Do NOT induce vomiting.
 - IF ON SKIN: Wash with plenty of soap and water. Specific treatment (see supplemental first aid instructions on this label)
 - If skin irritation or rash occurs get medical help.
 - IF IN EYE: Immediately rinse with water for several minutes. Remove contact lenses if present, and easy to do. Continue rinsing. Get medical help.
 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical help if you feel unwell.
 - Store locked up in a well-ventilated place. Keep container tightly closed.
 - Collect spillage.
 - Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable.
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- Prevent contamination of food, feed, drinking water and eating utensils.
 - Avoid spray drift onto other crops, grazing, rivers and dams.
 - Clean applicator thoroughly after use and dispose of wash water where it will not contaminate crops, grazing, rivers or dams.
 - Invert the empty container over the spray tank and allow to drain 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 of at least 10 % to that of the container. Add the rinsings to the contents of the spray tank before destroying the empty container.
 - Destroy empty container and do not use for any other purpose.
 - Change and wash your work clothes. Wash yourself.

RELEVANT SUBSTANCES

| Chemical name | w/w % | CAS no. |
|--|----------|------------------|
| Solvent naphtha, petroleum, heavy arom. | >60% | 64742-94-5 |
| Bifenthrin | 10 – 30% | 82657-04-3 |
| Benzenesulfonic acid, C10-13-(linear)alkyl derivs., calcium salt | <10% | EC no: 932-231-6 |
| 2-Ethylhexan-1-ol | <10% | 104-76-7 |

FIRST AID

In case of accident or unwellness, seek medical advice immediately. Provide this label and SDS to medical personnel for treatment. Emergency personnel should wear protective clothing appropriate to the type and degree of contamination.

Immediately remove contaminated clothing and remove the affected person from the contamination area. Keep the person warm, calm and covered up. First Aid personnel should pay attention to their own safety.

Take the container label or product name with you when seeking medical attention.

Eye contact: Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. Get medical attention immediately if symptoms occur.

Skin contact: Remove all contaminated clothing and shoes. Rinse the skin immediately with plenty of water for 15 to 20 minutes under the safety shower. Consult a physician if necessary.

Inhalation: Immediately remove the affected victim from exposure to an area with fresh air. If breathing is difficult have qualified personnel administer oxygen. If breathing has stopped, administer artificial respiration. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a physician.

Ingestion: Call a poison control center or medical practitioner immediately for treatment advice. If conscious, rinse mouth thoroughly with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious or convulsing person. If spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in of vomit, rinse mouth and administer more water.

TOXICOLOGICAL INFORMATION

Antidotes

None known. Treat symptomatically.

Symptoms of human poisoning

None known.



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

For resistance management, **SEIZER® 100 EC** is a group code 3A insecticide. Any insect population may contain individuals naturally resistant to **SEIZER® 100 EC** and other group code 3A insecticides. The resistant individuals can eventually dominate the insect population if these insecticides are used repeatedly. These resistant insects may not be controlled by **SEIZER® 100 EC** or any other group code 3A 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 the control methods (chemical, cultural, biological) into insect control programmes.

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

Note:

- Resistance of American bollworm (*Helicoverpa armigera*) to synthetic pyrethroids has been confirmed.
- **Cotton:** Synthetic pyrethroids must **only** be applied to cotton during the period 1 January to 28 February.
- **All other crops: Do not** apply more than two applications per growing season. If a pyrethroid gives poor performance **do not** re-spray with any synthetic pyrethroid, even at a corrective dosage rate. Use a product from a different chemical group.

MODE OF ACTION

3A: Sodium channel modulators – Keep sodium channels open, causing hyperexcitation and, in some cases, nerve block. Sodium channels are involved in the propagation of action potentials along nerve axons.

APPLICATION

Ground application

SEIZER® 100 EC can be applied by means of any suitable sprayer, provided it is calibrated correctly and can distribute the spray mixture evenly and efficiently over the target area.

Aerial application

Aerial application of **SEIZER® 100 EC** may only be done by a registered Aerial Application Operator using a correctly calibrated registered aircraft according to the instructions of the SANS 10118 (Aerial Application of 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 are met:

- Volume: A spray mixture volume of 30 L/ha 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 aerially at a lower volume rate than recommended above.

- Droplet coverage: 30–40 droplets/cm² must be recovered at the target area.
- Droplet size: A droplet spectrum with a VMD of 250–280 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 3–4 m 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 60–75% 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/h.
- 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.

Centre pivot application: (Maize only).

SEIZER® 100 EC may be applied through a centre pivot irrigation system. The supply tank and connecting pipes should be leak free and fitted with an efficient agitation mechanism. The spray mixture must be injected into the irrigation system by means of a positive displacement metering pump. Non-return valves in the system must be in place to prevent a back flow of the spray mixture to the water sources. If a chemigation system is not fitted to the centre pivot and the spray mixture is injected directly into the irrigation system, the centre pivot should be set at maximum speed and minimum water delivery. The spray mixture must be applied evenly over the target area in one continuous operation. Flush the whole system with clean water after use. Ensure that the flush water does not contaminate water sources.

DIRECTIONS FOR USE

Use only as indicated.

Mixing Instructions

Half fill the spray tank with clean water. Add the required volume of **SEIZER® 100 EC** while agitating. Fill the spray tank with water to the required volume. Ensure constant effective agitation during mixing and application.

General directions

Cotton

- Use in accordance with good pest management and integrated pest control by applying only during the period from peak flowering up to boll split. This period is approximately 10–22 weeks from plant emergence. In the period before peak flowering use registered pesticides from other chemical groups to control pests.
- For the control of red spider mite, it should be ensured that thorough wetting of the cotton plant is achieved, especially the undersides of the leaves. To achieve this, it is recommended to apply **SEIZER® 100 EC** only as a ground application for the control of Red spider mite in cotton.

Determination of the red spider mite population index by weekly scouting

Examine 48 plants/15 ha. Choose 3 leaves per plant, one from the middle and two from the upper portion. Count the number of adult females on these three leaves and allocate one of the following values to the total:

| | | |
|-------------|---|---|
| 0 mites | = | 0 |
| 1–10 mites | = | 1 |
| 11–30 mites | = | 2 |
| > 31 mites | = | 3 |

The population index is then calculated by adding up the values obtained for the 48 plants and dividing the sum by 48. Commence application if the population index has reached a value of 1,0. Repeat application as soon as any marked increase in the population index is noticed. Control must be aimed in keeping the population index below the spray threshold of 1,0 up to and including 20 weeks after crop emergence.

Control of bollworm in cotton

For the control of bollworm in cotton 24 plants/15 ha should be inspected weekly. The following thresholds per 24 plants is recommended.

| | | |
|-------------------|---|---------------------|
| American bollworm | = | 12 eggs or 5 larvae |
| Red bollworm | = | 6 eggs or 2 larvae |
| Spiny bollworm | = | 2 larvae. |

APPLICATION RATES

| CROP/TARGET | DOSAGE | REMARKS |
|---|---------------|--|
| Cotton Red spider mites (<i>Tetranychus</i> spp.) | 200–400 ml/ha | Apply in 100–200 L water/ha depending on plant height as an overall application. Ensure thorough wetting of the whole plant and ensure that efficient coverage of the undersides of leaf surfaces is achieved. Repeat application if necessary. Use the lower rate in 100 L water on plants less than 60 cm tall and the higher rate in 200 L water on plants taller than 60 cm. This treatment will also control American bollworm, red bollworm, spiny bollworm and cotton stainers if present at time of application. Larvae established in the bolls may not be controlled. (Refer to resistance warning above). |
| Cotton American bollworm (<i>H. armigera</i>) Red bollworm (<i>Diparopsis castanea</i>) Spiny bollworm (<i>Earias</i> spp.) Cotton stainer (<i>Dysdercus</i> spp.) | 150–300 ml/ha | Apply as a preventive application based on scouting. Ensure thorough wetting of plants. Repeat application if necessary. Use lower rate in 100 L water on plants less than 60 cm tall and the higher rate in 200 L on plants taller than 60 cm. For aerial application use at least 30 L water/ha. (Refer to resistance warning above). |
| Maize Red spider mite (<i>Tetranychus urticae</i>) | 500 ml/ha | Refer to cotton under General Directions for the determination of the population index and the spray threshold. Because of the growth habit of the maize plant it is very difficult to obtain an even wetting of the plant. Therefore, the control of adult red spider mites is aimed at the top 5–6 leaves until after the soft dough stage of the cob. Application of SEIZER® 100 EC can be done by means of ground or centre pivot application. Refer to centre pivot application above. Ensure thorough wetting of the 5–6 top leaves and especially the undersides of the leaves. The addition of a suitable wetter is recommended. Repeat application within 14 days if necessary. If American bollworm is present at the time of application, it will also be controlled. (Refer to resistance warning above). |



ADAMA

Listen - Learn - Deliver

| CROP/TARGET | DOSAGE | REMARKS |
|---|--|--|
| Potatoes Tuber moth (<i>Phthorimaea operculella</i>) | 300 ml/ha | Apply as a preventive full cover spray in not less than 500 L water/ha. Do not apply more than two sprays per growing season. (Refer to resistance warning above). |
| Tomatoes Red spider mites (<i>Tetranychus</i> spp.) American bollworm (<i>H. armigera</i>) Semi-looper (<i>Chrysodeixis acuta</i>) Leafminer (Tuber moth larvae) (<i>P. operculella</i>) American leafminer (<i>Liriomyza trifolii</i>) | 400 ml/ha 300 ml/ha | Apply as a full cover spray in at least 500 L water/ha. Ensure thorough wetting of the plants and especially the undersides of leaf surfaces. In trellised tomatoes, spray on both sides of the row. Under severe infestation levels repeat application within 7 days. (Refer to resistance warning above). Apply as a full cover spray in at least 500 L water/ha. Ensure thorough wetting of the plants. Repeat application within 7- to 10-days if necessary. (Refer to resistance warning above). |