


KLARTAN[®] 240 EW

Reg. no. L5096 Act/Wet 36 of/van 1947
N-AR 0916

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

GROUP	3A	INSECTICIDE
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<p>A stomach and contact insecticide emulsion for the control of pests in apples, canola, citrus, macadamias, pears, peaches, plums, prunes, tomatoes and wheat as indicated.</p>	<p>' n Kontak- en maaginsekdoeder emulsie vir die beheer van plae in appels, kanola, koring, makadamias, pere, perskes, pruime, pruime-dante, sitrus en tamaties soos aangedui.</p>
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 <p>WARNING</p>	<p>Hazard statements Very toxic to aquatic life with long lasting effects.</p> <p>Precautionary statements Avoid release to the environment. Collect spillage.</p>
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ACTIVE INGREDIENT/AKTIEWE BESTANDEEL

tau-fluvalinate (pyrethroid) 240 g/L tau-fluvalinaat (piretroïed)

NET VOLUME/NETTO VOLUME

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REGISTRATION HOLDER/REGISTRASIEHOUER

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EMERGENCY NUMBERS:

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

Batch number	Lotnommer
Date of manufacture	Datum van vervaardiging
Expiry date	Vervaldatum

WARNINGS

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| <ul style="list-style-type: none"> • Very toxic to aquatic life with long lasting effects. |
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Withholding periods (minimum number of days between last application and harvest):

Apples, pears, peaches, plums and prunes	60 days
Canola	20 days
Citrus	43 days
Macadamias	30 days
Tomatoes	2 days
Wheat	38 days

- Do not graze wheat fields that have been treated with **KLARTAN® 240 EW**.
- Could be harmful when inhaled, swallowed or absorbed through the skin.
- **Re-entry interval:** Do not enter treated field within one day after application unless wearing protective clothing.
- This product must be kept in its original, properly labeled container, well-sealed and stored in a cool, dry and well-ventilated place away from food, feed and eating utensils.
- This product is not toxic to honeybees.
- Do not apply **KLARTAN® 240 EW** when bees are active.
- **Aerial application:** Notify all inhabitants in the immediate vicinity of the area to be sprayed and issue the necessary warnings. Do not apply over water or adjacent areas or allow the spray drift to contaminate it.

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 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 humans or animals, or for lack of performance of the remedy concerned due to failure of the user to follow 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

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| <ul style="list-style-type: none"> • Keep out of reach of children. • Avoid release to the environment. • Collect spillage. • Dispose of contents/ container to an approved waste disposal plant. |
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- **DO NOT APPLY WHEN WEATHER CONDITIONS FAVOUR DRIFT ONTO OTHER CROPS, GRAZING, RIVERS, DAMS AND AREAS NOT UNDER TREATMENT.**
- Do not contaminate drinking water, food, eating utensils or feed.
- Do not apply where run-off is likely to occur.
- Avoid contact of the product with eyes and skin. In case of accidental contact, wash contaminated parts of the body immediately with water and soap.
- Wear rubber gloves and face shield during mixing and application.
- Do not smoke, drink or eat during mixing and application or before washing hands and face.
- Avoid inhalation of the spray mist.
- At the end of measuring and application, change clothes and wash hands and face thoroughly.
- Clean equipment and wash clothing separately from ordinary clothes.
- 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 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 and destroy the container by perforation and flattening.
- Never re-use empty container for any other purpose.
- Clean applicator thoroughly after use and dispose of wash water where it will not contaminate crops, grazing, rivers, dams or other non-target areas.
- In case of spillage or leakage, soak up with soil or other absorbent materials and dispose of at any approved waste disposal facility.

RELEVANT SUBSTANCES

Chemical name	w/w %	CAS no.
Tau-fluvalinate	10–30%	102851-06-9
Hydrocarbons, C9, aromatics	<10%	EC no: 918-668-5
Methanol	<10%	67-56-1

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. If symptoms persist, call a physician.



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: If conscious, rinse mouth thoroughly with water. Drink plenty of water. 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. Get medical attention immediately if symptoms occur.

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, **KLARTAN® 240 EW** is classified as a group code 3A insecticide. Any insect population may contain individuals naturally resistant to **KLARTAN® 240 EW** 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 **KLARTAN® 240 EW** 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 programs.

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

Resistance of American bollworm (*Helicoverpa armigera*) to synthetic pyrethroids has been confirmed. For the control of a pest, DO NOT apply more than two applications of **KLARTAN® 240 EW** 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.

Reports of resistance of thrips (*Scirtothrips aurantii*) in citrus against synthetic pyrethroids have also been received. Do not use **KLARTAN® 240 EW** for thrips control in areas where resistance of thrips against synthetic pyrethroids occurs.

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.

DIRECTIONS FOR USE

Use only as indicated.

Compatibility

The compatibility of **KLARTAN® 240 EW** with other products may be influenced by the formulation of the products involved as well as the quality of the dilution water. Since the formulation of other products may change without the knowledge of ADAMA South Africa (Pty.) Ltd. and the quality of water may vary from farm to farm, a physical compatibility test should always be carried out prior to application. **KLARTAN® 240 EW** is compatible with: **KAPTAN WP** (Reg. no. L1248), **METEOR** (Reg. no. L3506), **KELPAK** (Reg. no. L2414), **ANVIL** (Reg. no. L3505), **OCTAVE** (Reg. no. L3406), **BAYCOR** (Reg. no. L32), **NOVEL** (Reg. no. L4858), **BUMPER** (Reg. no. L6034), **NIMROD** (Reg. no. L1117), **SOLUBOR** (Reg. no. B699), **ZINCOXIDE** (Reg. no. B2383), **MANGANESE SULPHATE** (Reg. no. B2223), **AGRAL 90** (Reg. no. L2987) and **NUTRISOL** (Reg. no. K439).

Do not use **KLARTAN® 240 EW** with any spray oil or highly alkaline materials.

Do not mix **KLARTAN® 240 EW** with **NISSORUN 100 WP** (Reg. no. L3561).

Mixing instructions

Preparation of spray mixture

- Half fill the spray tank with clean water. Measure out the required amount of **KLARTAN® 240 EW** and pre-mix with approximately 10 L water. Add this to the bulk of the water in the spray tank while stirring. Fill the spray tank to the required level with water and continue agitation before and during spraying.
- For tank mixtures with other products, half fill the tank with water and add the required quantity of **KLARTAN® 240 EW** and agitate. Then add the tank mix partner, following its label instructions for preparation, and agitate again. Continue agitation while adding more water to achieve the required spray volume.
- The use of alkaline water with a pH > 7 is known to reduce the efficacy of products.
- Use a suitable buffer where such conditions exist.

Application techniques

Ground application

KLARTAN® 240 EW can be applied with conventional spraying equipment delivering medium to fine droplets. Calibrate the equipment before application to ensure that the correct dosage is applied. The spray mixture must be applied evenly over the target area.

Aerial application

Aerial application of **KLARTAN® 240 EW** may only be done by a registered Aerial Application Operator using a correctly calibrated, registered aircraft according to the instructions of SANS Code 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 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:
 - reduced efficacy due to suspension and evaporation of small droplets in the air (inadequate coverage);
 - 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 timing

Generally, speed of crop growth, climatic variation and pest behaviour determine treatment needs.

To prevent damage, applications must start as soon as possible according to programmes based on monitoring or on local warning advice.



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APPLICATION RATES

CROP AND TARGET	DOSAGE	REMARKS
<p>Apples and pears</p> <p>Antestia bug (<i>Antestiopsis orbitalis</i>)</p> <p>Fruit nibbler (<i>Prasoidea sericea</i>)</p> <p>American bollworm (<i>Helicoverpa armigera</i>)</p> <p>Codling moth (<i>Cydia pomonella</i>)</p>	<p>High volume 30 ml/100 L water</p> <p>Low volume 750–1 050 ml/ha</p> <p>High volume 30 ml/100 L water</p> <p>Low volume 750–1 050 ml/ha</p>	<p>Apply at a rate of 2500–3500 L spray mixture per hectare as a full cover spray commencing at 30% flowering stage. Repeat 14 days later (75% petal drop). KLARTAN® 240 EW will not harm bees.</p> <p>Apply as above in not less than one quarter of the spray volume used for high volume application.</p> <p>See warning against resistance under “warnings” above.</p> <p>Apply at a rate of 2500–3500 L spray mixture per hectare as a full cover spray commencing at 75 % petal drop. Repeat at intervals of 14 to 18 days up to middle December. Antestia, fruit nibbler, red spider mite (<i>Tetranychus urticae</i>), European red mite (<i>Panonychus ulmi</i>) and aphids will also be controlled, and banded fruit weevil (<i>Phlyctinus callosus</i>) suppressed by these applications.</p> <p>NOTE: At least two applications of KLARTAN® 240 EW are needed to control red spider mite.</p> <p>Apply as above in not less than one quarter of the spray volume used for high volume application.</p>
<p>Canola</p> <p>Aphid (<i>Brevicoryne brassicae</i>)</p>	<p>150 ml/ha</p>	<p>Ground application</p> <p>Apply in 250 L water per hectare as soon as aphids are noticed. Do not wait until infestations reach high levels before application is done. American bollworm will also be controlled if present at time of application (see section under resistance).</p> <p>Aerial application</p> <p>Apply in at least 30 L water per hectare.</p>



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CROP AND TARGET	DOSAGE	REMARKS
Citrus Thrips (<i>Scirtothrips aurantii</i>)	15–30 ml/100 L water	Apply the higher rate at 70–90% petal drop as a light cover spray to wet canopy foliage. A second application at the lower rate may be applied 4 to 5 weeks later. American bollworm, citrus looper, orange dog (<i>Papillio spp.</i>), psylla (<i>Trioza erytreae</i>) and aphids will be controlled if present at time of application. WARNING: Do not apply KLARTAN® 240 EW in areas where resistance of thrips against synthetic pyrethroids occurs. Refer to the note at end of the table.
Macadamia Stinkbug (<i>Pentatomidae spp</i>) MPUMALANGA ONLY	High volume 30 ml/100 L water	Apply as a full cover spray in a programme of three applications with intervals of 28 days. Start the first application as soon as an average of 1.8 stinkbugs per tree are counted. This can be determined by means of the tree shake method. Commence monitoring two weeks after flowering.
Peaches, plums and prunes Green peach aphid (<i>Myzus persicae</i>)	High volume 30 ml/100 L water	Apply at a rate of 1500–2000 L spray mixture per hectare as a full cover spray, commencing application when aphids are noticed. Repeat application as necessary. Applications will also control red spider mite, Antestia, fruit nibbler and American bollworm if present during application. NOTE: At least two applications of KLARTAN® 240 EW are needed to control red spider mite.
Tomatoes American bollworm (<i>Helicoverpa armigera</i>)	15 ml/100 L water	Apply as a full cover spray commencing at flowering and repeat at 7-day intervals. Use 500–1000 L spray mixture per hectare depending on plant size. Programme sprays will normally control red spider mite. Should mite populations exceed threshold values, an application of a registered acaricide is recommended. See warning against resistance under “warnings” above.
Wheat Brown wheat ear aphid (<i>Sitobion avenae</i>) WESTERN CAPE ONLY	100 ml/ha	Ground application Apply as soon as aphids occur. Aerial application Apply in 30 L water per hectare.



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NOTE: KLARTAN® 240 EW should not be used in the same thrips control programme as **MEOTHRIN** (Reg. no. L2023).