



LUFEN 5 EC

Reg. No. L 10491, Act No. 36 of 1947 | Reg. Nr. L 10491, Wet Nr. 36 van 1947

Read the label before use
Keep out of reach of children and animals

An emulsifiable concentrate insect growth inhibitor for the control of certain larvae in cruciferae, potatoes and tomatoes.

Hazard Statements

Harmful if swallowed
Harmful if inhaled
Causes skin irritation
Causes eye irritation

Very toxic to aquatic life with long lasting effects

Precautionary Statements

Wash skin thoroughly after handling
Do not eat, drink or smoke when using this product

Insecticide Group Code 15

ACTIVE CONSTITUENTS:

Lufenuron (benzoylurea) 50 g/l

Manufactured for and registered by/Vervaardig vir en
geregistreer deur:

Sharda International Africa (PTY) LTD

Reg. No./Reg. Nr. 2010/002268/07

P. O. Box/Posbus 82021, Southdale, 2135

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'n Emulgeerbare konsentraat insekgroei-inhibeerder vir die beheer van sekere larwes in aartappels, koolgewasse en tamaties.



Warning

Insekdoder Groepkode 15

AKTIEWE BESTANDDELE:

Lufenuron (benzolareum) 50 g/l

BATCH NO. LOT NR.	
EXPIRY DATE VERVAL DATUM	

UN No. / VN Nr. 3082

Net Volume /
Netto Volume

5L

WARNINGS

- Withholding Period: The minimum number of days between the last application of "Lufen 5 EC" and harvest:
- Cruciferae – 7 days. Tomatoes – 3 days.
- Handle with care.
- Harmful if swallowed
- Harmful if inhaled
- Causes skin irritation
- Causes eye irritation
- Very toxic to aquatic life with long lasting effects
- Keep out of reach of children, uninformed persons and animals.
- Toxic to fish and crustaceans.
- Store under lock and key in a well-ventilated cool dry place.
- Store in the original container away from food, feed, fertiliser and other agricultural chemicals.
- Flammable – do not store or handle near open flames or heat sources.
- Re-entry: Do not enter treated area until spray deposit has dried unless wearing protective clothing.
- 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 drift to contaminate water or adjacent areas.

Although this insecticide 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 disease against this insecticide, 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 in the event of any uncertainty.

PRECAUTIONS

- Wash skin thoroughly after handling
- Do not eat, drink or smoke when using this product
- Avoid breathing dust/fume/gas/mist/vapours/spray.
- Use only outdoors or in a well-ventilated area.
- Wash face, hands and any exposed skin thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.
- Avoid skin and eye contact
- Do not inhale fumes or spray mist
- Avoid release to the environment.
- Prevent contamination of food, feedstuffs, drinking water and eating utensils.
- Avoid spray drift onto other crops, grazing, rivers, water bodies and areas not under treatment.
- Clean the applicator after use and dispose of wash water where it will not contaminate crops, grazing, rivers and dams.
- Rinse the empty container three times with a volume of water equal to at least one tenth of that of the container and add the rinsing water to the contents of the spray tank before disposing of the container in the prescribed manner.
- Destroy the empty container by perforation and flattening and do not use for any other purpose.

RELEVANT SUBSTANCES:

Substance	%
Luferuron	< 10 %
Tensiofix B9718	< 3 %
Tensiofix B9732	< 4 %
Cyclohexanone	< 3 %
Solvesso	< 7 %

Resistance Management: For resistance management, "Lufen 5 EC" is a group code 15 insecticide. Any insect population may contain individuals naturally resistant to "Lufen 5 EC" and other group code 15 insecticides. The resistant individuals can eventually dominate the insect population if these insecticides are used repeatedly and consecutively. These resistant insects may not be controlled by "Lufen 5 EC" or any other group code 15 insecticides.

To delay insecticide resistance: Avoid exclusive repeated and consecutive use of insecticides from the same insecticide group code. Alternate with products from different insecticide group codes. Integrate with other control methods (chemical, cultural, biological) into insect control programs.

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

DIRECTIONS FOR USE

Use only as indicated.

Compatibility:

"Lufen 5 EC" is compatible with some fungicides, insecticides and acaricides. However, compatibility will be influenced by the formulation of tank mix product and the spray water quality. A small scale compatibility test with any tank mix must be carried out before any large scale application.

Mixing Instructions:

Half fill the spray tank with clean water; add the required quantity of "Lufen 5 EC" to the spray tank; fill the spray tank to the required capacity. If other products are to be used in a tank mix, they should be diluted with a small quantity of water, thoroughly mixed and then added to the spray tank before filling to the required capacity.

The spray mixture must be agitated during mixing and spraying.
Do not allow the spray mix to stand without agitation.

All label recommendations of tank mix products must be followed.

Spray Application:

All spray equipment must be clean and correctly calibrated.

Ensure a spray volume that will give an even spray droplet distribution on the target plant surfaces.

Ground equipment: Spray 150 to 500 l per ha depending on crop growth stage.

Aerial application:

Aerial application of "Lufen 5 EC" may only be done by a registered Aerial Application Operator using a correctly calibrated, registered aircraft according to the instructions of SABS 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 per hectare 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 to 40 droplets per cm² must be recovered on the target area.
- **Droplet size:** A droplet spectrum with a VMD of 250 to 280 microns is recommended. Limit the production of fine droplets of less than 150 microns (high drift and evaporation potential) to a minimum.
- **Flying height:** Maintain the height of the spray boom at 3 to 4 metres 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 to 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.

USE RECOMMENDATIONS

- "Lufen 5 EC" inhibits chitin synthesis in Lepidoptera larvae. It is not systemic in plants. It is a stomach acting insecticide and is active against eggs with moderate contact activity.
- Apply "Lufen 5 EC" two or more times for optimum results.
- Do not apply more than 4 "Lufen 5 EC" applications to cabbages.
- Do not apply more than 6 "Lufen 5 EC" applications to potatoes and tomatoes.
- Spray volumes must be adjusted according to the crop growth stage.

CROP/ PEST	DOSAGE RATE	REMARKS
Cruciferae Diamond-back Moth Larvae (<i>Plutella xylostella</i>)	600-800 mℓ/ ha or 60-80 mℓ/100ℓ water	Apply when moths are first noticed and repeat at 7 to 10 day intervals. Ensure complete spray cover of plants. It is recommended to add a registered wetting agent to the spray mixture.
POTATOES Tuber Moth Larvae (<i>Phthorimaea operculella</i>)	800 mℓ/ha	Apply from the end of the flowering period and repeat at 14 day intervals. When leaf fall occurs, apply at 7 to 10 day intervals until the crop is lifted. Aerial application: apply in 30 ℓ water /ha.
Potatoes:		
• Pre-flowering period: Use alternate registered insecticides such as "Sharda Bifenthrin 100 EC" or "Shamda 50 EC" for tuber moth larvae control. • The potatoes must be ridged at least twice during the growing period.		
TOMATOES Tomato Leafminer Larvae (<i>Liriomyza trifolii</i>), Potato Tuber Moth Larvae (<i>Phthorimaea operculella</i>).	80 mℓ/100ℓ or 800-1200 mℓ/ha	Apply when moths are first noticed and repeat at 7 to 10 day intervals. Ensure complete spray cover of plants. Tomato semi-looper (<i>Chrysodeixis acuta</i>) larvae present at the time of application will be controlled.

"Sharda Bifenthrin 100 EC" is registered under Act No. 36 of 1947 by Sharda International Africa Pty Ltd; Reg. No. L 9125.

"Shamda 50 EC" - registration under Act No. 36 of 1947 by Sharda International Africa Pty Ltd Reg No L10258