

GEBRUIKSAANWYSINGS INGESLUIT

DIRECTIONS FOR USE ENCLOSED

VERWYS NA BESONDERHEDE  
GEDRUK OP HOUER/SAK

REFER TO DETAILS PRINTED  
ON CONTAINER/BAG

Batch number:  
Lotnummer:

Date formulated:  
Formuleringsdatum:

BEFORE USING THIS PRODUCT READ THE LABEL CAREFULLY!

Insecticide



# LAMBDA SECURE 106 CS

Reg. No. L 8939 Act/Wet No. 36 of/van 1947  
W 130693

3:25/4/2016- Jan2019

*A capsuled suspension concentrate contact and stomach insecticide for the control of insects on crops as mentioned below.*

*'n Ge-enkapsuleerde suspensie konsentraat kontak- en maag insekdoder vir die beheer van insekte op gewasse soos hieronder aangedui.*

### ACTIVE INGREDIENT / AKTIEWE BESTANDEEL

lambda-cyhalothrin (pyrethroid) 106 g/l lambda-sihalotrin (piretroïed)

IRAC INSECTICIDE GROUP CODE **3** IRAC INSEKDODER GROEPKODE



**villa**

Registration holder / Registrasiehouer:

Universal Crop Protection (Pty) Ltd.

Co. Reg. No. / Mpy. Reg. Nr. 1983/008184/07

PO Box / Posbus 801, Kempton Park, 1620

Tel: 011 396 2233

Website / Webblad: [www.villacrop.co.za](http://www.villacrop.co.za)

UN Number: 2902

Willow Set & Print 011 394-4486



HARMFUL  
SKADELIK



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**UNIVERSAL CROP PROTECTION (PTY) LTD.**

Co. Reg. No. 1983/008184/07 Mpy. Reg. Nr.

P.O. Box / Posbus 801

KEMPTON PARK, 1620 Tel. (011) 396 2233

**WARNINGS****Withholding periods:**

Allow the following number of days between last application and harvest of the crops listed below:	
Maize and Sweetcorn	7 days
Sorghum, Soybeans (grazing)	28 days

**NOTE**

**THE MAXIMUM RESIDUE LEVELS (MRL'S) WILL NOT BE EXCEEDED, PROVIDED APPLICATIONS ARE APPLIED AS HEREWITH PRESCRIBED. WHEN THE CROP IS DESTINED FOR THE EXPORT MARKET, THE INSTITUTION OF CONCERN MUST BE CONTACTED, PRIOR TO THE USE OF LAMBDA SECURE 106 CS IN A SPRAY PROGRAMME.**

- Handle with care.
- Irritating to eyes and skin.
- Harmful when swallowed, inhaled or absorbed through the skin.
- Very toxic to fish.
- Use the product according to directions to limit the risk towards bees, beneficial pest parasites, beneficial predators and fish.
- Do not apply when bees are most active. Do not direct spray towards bee hives or allow spray drift in their vicinity. **Lambda-cyhalothrin** residues have no visible effect upon foraging honeybees, provided the dosage rate of 300 ml per hectare is not exceeded.
- Do not spray over or allow drift to contaminate water bodies such as dams, ponds, rivers, streams or fish hatcheries.
- Do not allow spray to drift to citrus orchards under integrated biological control for Red scale.
- Store under lock and key in a cool, dry place away from food, feeds, fertilizers and other agrochemicals.
- Keep out of reach of children, uninformed persons and animals.
- Re-entry: Do not enter treated area within 1 day after treatment unless wearing protective clothing.
- **In case of poisoning call a doctor and make this label available to him/her.**

**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 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. The action and effect thereof may be effected by factors such as abnormal soil, climatic and storage conditions, quality of dilution water, compatibility with other substances not indicated on the label, 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 in the event of any uncertainty.**

## **PRECAUTIONS**

- Avoid inhalation of the spray mist or fumes.
- Avoid eye and skin contact.
- Wear a facemask, rubber gloves and boots when handling, preparing and applying the spray mixture.
- Wash with soap and water after use or in the event of accidental skin contact.
- Wash contaminated clothing after use.
- Do not eat, drink or smoke while mixing and applying the product or before washing hands and face and change of clothing.
- **TRIPLE RINSE** empty containers in the following manner: Invert the empty container over the spray or mixing tank and allow draining 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 equal to a minimum of a third of the volume of the container. Add the rinsing to the contents of the spray tank before destroying the container in the prescribed manner.
- Destroy the container by perforation and flattening and dispose of it in a safe way.
- **Never** re-use the empty container for any other purpose.
- Prevent contamination of food, feeds, drinking water and eating utensils.

## **SYMPTOMS OF HUMAN POISONING**

No cases of poisoning have been described in the general population and none from occupational exposure. However, symptoms that may arise if the product is mishandled and overexposure occurs are: nausea, vomiting, diarrhoea, abdominal pain, ataxia, unsteady gait, hyperexcitability, salivation, tremors and incontinence. Larger doses may cause convulsions and loss of consciousness.

## **FIRST AID TREATMENT**

- **Skin:** Remove contaminated clothing, shoes and leather goods. Wash skin gently and thoroughly with cold water and non-abrasive soap. Do not rub the skin. Apply olive oil to affected areas for prompt relief. Get medical attention if irritation occurs and persists.
- **Eyes:** Rinse eyes with clean water for at least 20 minutes. If irritation occurs and persists, obtain medical attention.
- **Inhalation:** If vapours or mists have been inhaled and irritation has developed, remove the source of contamination or move victim to fresh air. If breathing difficulty or irritation occurs and persists, obtain medical attention.
- **Ingestion:** Have victim rinse mouth thoroughly with water. **Do not induce vomiting, due to aromatic solvent. Obtain medical advice immediately.** Never give anything by mouth to an unconscious person. Treat respiratory difficulty with artificial respiration and oxygen. Qualified medical personnel must perform administration of oxygen.

## **NOTE TO PHYSICIAN**

There is no specific antidote available. This product contains materials that may cause severe pneumonitis if aspirated. In cases of ingestion, consider gastric lavage, however, prevent aspiration. Observe patient for respiratory difficulty from aspiration pneumonitis. Treat symptomatically and supportively.

## **RESISTANCE WARNING**

**LAMBDA SECURE 106 CS** is a group code 3 insecticide. Any insect population may contain individuals naturally resistant to **LAMBDA SECURE 106 CS** and other group code 3 insecticides. The resistant individuals can eventually dominate the insect population if these insecticides are used repeatedly. These resistant insects may not be controlled by **LAMBDA SECURE 106 CS** or any other group code 3 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 other control methods (chemical, cultural, biological) into insect control programmes.

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

## **RESISTANCE MANAGEMENT**

- Resistance of African bollworm (*Helicoverpa armigera*) to synthetic pyrethroids has been confirmed. As part of a strategy to prevent development of widespread resistance, the following guidelines must be adhered to for the control of *Helicoverpa armigera*:

**ALL CROPS:** Do not apply more than two (2) applications per growing season.

- For optimal control of susceptible bollworm populations, the larvae should not exceed 10 mm (1 cm) in length, at time of application.
- If a pyrethroid spray gave ineffective control, do not re-spray with any synthetic pyrethroid, even at a corrective dosage rate. Use a product from a different chemical group.

#### **USE RESTRICTIONS**

- When **LAMBDA SECURE 106 CS** is applied to densely growing crops, the efficacy of the spray mixture may be adversely affected.
- Do not apply on plants that are wet from dew or rain.

#### **DIRECTIONS FOR USE: Use only as directed.**

##### **Compatibility:**

- Do not mix **LAMBDA SECURE 106 CS** with seaweed extracts.
- **LAMBDA SECURE 106 CS** is compatible with **Prime 50 EC, Advance 150 SC, Commodobuff** or a **Villa approved buffer + surfactant adjuvant**.
- The compatibility of **LAMBDA SECURE 106 CS** with other products may be influenced by several factors. As factors influencing compatibility may vary, a physical compatibility test must always be performed before such tank mixture is sprayed.
- When **LAMBDA SECURE 106 CS** is used in conjunction with any other agricultural remedy, adhere to all **WARNINGS, PRECAUTIONS** and **DIRECTIONS FOR USE** mentioned on that label.

##### **Mixing instructions:**

- Half fill the spray tank with clean water.
- Effectiveness of **LAMBDA SECURE 106 CS** can be affected by very hard water (>1000 p.p.m. solutes) and/or water with a high or low pH value. The ideal pH is between 5 and 8.
- Use **Commodobuff** buffer at the registered rate to adjust the pH of the water if not in the ideal range.
- **Commodobuff** buffer must be mixed with the water prior to the addition of **LAMBDA SECURE 106 CS**.
- Take approximately 10 litres of this pH-corrected water from the mixing tank and thoroughly mix with the required volume **LAMBDA SECURE 106 CS**.
- If any other product is to be mixed with **LAMBDA SECURE 106 CS**, the required volume of this product must be pre-mixed in a similar way.
- Agitate the water in the spray tank and then add the product(s) to the tank in the following sequence (as applicable): **Commodobuff**, suspension concentrate, water-soluble concentrate, emulsifiable concentrate.
- Fill the spray tank with water to the required level while maintaining agitation, to ensure thorough mixing.
- Maintain agitation during application.
- Prepared spray mixtures must not be left in the spray tank for any length of time, e.g. overnight.

##### **Application:**

- All applications must be performed with suitable equipment that is in good working order and correctly calibrated, to give the desired coverage for that particular method of application.
- Ensure that thorough penetration and wetting is obtained.
- Monitor efficacy within 3 days after application. A further application may be necessary if unacceptable levels of control have been obtained.

##### **Ground application:**

- Use hollow cone nozzles that produce a medium to fine droplet spectrum with conventional high volume spray equipment.
- Calibrate the spraying equipment before application and ensure correct application.
- Ensure an even distribution of the spray mixture over the whole target area.

##### **Aerial application:**

Aerial application of **LAMBDA SECURE 106 CS** 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 litres 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 cm<sup>2</sup> must be recovered at the target area.
- Droplet size: A droplet spectrum with a VMD of 250 to 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 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 per hour.
- 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.

#### **Pivot Chemigation:**

- The system must have a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent contamination of the water source from back flow.
- The pesticide injection pipeline must have a functional automatic quick-closing check valve to prevent the flow of liquid back towards the injection pump.
- The pesticide injection line should also have a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn out of the supply tank when the irrigation system is either automatically or manually closed down.
- The system must have functioning interlocking controls to shut off the pesticide injector pump automatically when the water-pump motor stops.
- The irrigation line or water-pump must include a functional pressure switch, which will stop the water-pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- Do not apply when wind conditions favour drift beyond the area intended for treatment.
- **IMPORTANT**  
Use very clean water for pivot irrigation application. Water must be free of silt, clay and organic material, as pyrethroids tend to adhere to these particles and adversely affect the efficacy.

**APPLICATION RATES**

<b>Crop / Pest</b>	<b>Dosage rate</b>	<b>Remarks</b>
<b>Maize</b> Cutworms ( <i>Agrotis</i> spp.)		Apply as a preventative (pre-emergence) or corrective (post-emergence) treatment as follows: The soil must be well prepared, i.e. free of clods and excessive plant debris. In situations where reduced tillage is practised, Cutworm populations are usually high. The Cutworm population must therefore be monitored after the first application and a second application be applied if necessary. Apply as an overall, corrective spray at the recommended rate. <b>Apply ONLY if the top 3 cm of the soil is moist.</b>
	0.11 ml / 100 m row  <b>OR</b>  0.7 ml / 10 l water	<u>Ground application:</u> i) <u>Row treatment:</u> Apply at least 3 litres water in a 30 cm wide band over the row. <u>Household / small scale applications:</u> Apply over 10 m <sup>2</sup> (= 1 litre spray mixture per square metre).
	35 ml / ha	ii) <u>Broadcast application:</u> Apply in 300 litres water per hectare.
<b>Maize &amp; Sweetcorn</b> African bollworm <i>Helicoverpa armigera</i>	<b><u>VERY IMPORTANT</u></b>	
	<ul style="list-style-type: none"> <li>• Refer to “USE RESTRICTIONS”, “DIRECTIONS FOR USE” (including “Crop information”) and “APPLICATION INSTRUCTIONS”.</li> <li>• <b>Warning Against Resistance:</b> Refer to “RESISTANCE MANAGEMENT” above.</li> </ul>	
	50 ml / ha	<u>Ground application:</u> Apply 250 to 500 litres water per hectare depending on plant size.
	60 ml / ha	<u>Aerial application:</u> Apply in 30 litres water per hectare.
<b>Maize</b> Sorghum stem borer, <i>Chilo partellus</i> (First and second generation)	0.6 ml / 100 m row  <b>OR</b> 0.6 ml / 100 m row <b>PLUS</b> 7 ml / 100 m row <b>Prime 50 EC</b>	<u>Ground application:</u> Apply as soon as 10 % plants show shot-hole damage and direct spray into the funnel area of the plants. If necessary, apply a follow-up treatment shortly before tasseling. A minimum of 3 litres spray mixture must be applied per 100 m row. In tank mixtures with <b>Prime 50 EC</b> add a <b>Villa approved buffer + surfactant adjuvant</b> at the recommended rate.
	0.6 ml / 100 m row (60 ml / ha)  <b>OR</b> 0.6 ml / 100 m row <b>PLUS</b> 7 ml / 100 m row <b>Prime 50 EC</b>	Apply as soon as eggs are found on 5 % of the plants or 10 % plants show shot-hole damage. A second application may be required 10 to 14 days later. Direct sprays into plant funnel area. Use at least 3 litres water per 100 m row.  In tank mixtures with <b>Prime 50 EC</b> add a <b>Villa approved buffer + surfactant adjuvant at the recommended rate.</b>
Maize stalk borer, <i>Busseola fusca</i> (First and second generation)	60 ml / ha	<u>Aerial application:</u> Apply as above in 30 litres water per hectare.

<b>Crop / Pest</b>	<b>Dosage rate</b>	<b>Remarks</b>
<p><b><u>Maize &amp; Sweetcorn</u></b></p> <p>Larvae of: Maize stalk borer <i>Busseola fusca</i></p> <p>Sorghum stem borer <i>Chilo partellus</i></p> <p>African bollworm <i>Helicoverpa armigera</i></p>	<p>60 ml / ha <b>LAMBDA SECURE 106 CS</b></p> <p><b>PLUS</b></p> <p>300 ml / ha <b>Advance 150 SC</b></p> <p><b>PLUS</b></p> <p>5 l / ha <b>mineral oil adjuvant</b></p>	<p><u>Application through pivot irrigation system:</u></p> <p><b>IMPORTANT</b></p> <p>Refer to “<b>Application through irrigation systems</b>” above.</p> <p>Apply as a preventative or early corrective treatment.</p> <p>Under conditions of repeated infestation, apply <b>LAMBDA SECURE 106 CS</b> plus <b>Advance 150 SC</b> in a 10 to 14 day spray programme. Use the shorter spray interval when the pest infestation pressure is high or when maize is growing fast.</p>
<p><b><u>Sweetcorn</u></b> Pink stalk borer, <i>Sesamia calamistis</i></p>	<p>0.6 ml / 100 m row</p>	<p><u>Ground application:</u> Apply directly into the funnel area of the plants 14 days after emergence of the crop. A follow-up application 10 to 14 days later must be applied and, if necessary, up to flowering to control re-infestations. A minimum of 3 litres spray mixture per 100 m row must be applied.</p>
<p><b><u>Sorghum</u></b> Maize stalkborer, <i>Busseola fusca</i></p>	<p>0.6 ml / 100 m row</p>	<p><u>Ground application:</u> Apply 3 litres water during the funnel stage when 5 % of the plants show shot-hole damage and borers have not yet migrated into the stalks. Direct application into funnel. <i>Chilo partellus</i> present at time of application will also be controlled.</p>
	<p>60 ml / ha</p>	<p><u>Aerial application:</u> Apply 30 litres water per hectare.</p>
<p><b><u>Soybeans</u></b> African bollworm, <i>Helicoverpa armigera</i></p>	<p><b>Warning Against Resistance:</b> Refer to “<b>RESISTANCE MANAGEMENT</b>” above.</p>	
	<p>60 ml / ha</p>	<p><u>Ground application:</u> Apply as soon as infestation is noticed and repeat if necessary. Apply in 200 to 300 litres water per hectare and ensure good coverage of the plants.</p> <p><u>Aerial application:</u> Apply in at least 30 litres water per hectare.</p>

Consult the **Commodobuff**, **Advance 150 SC**, **Prime 50 EC** and Villa approved buffer + surfactant adjuvant labels for **WARNINGS**, **PRECAUTIONS**, **USE RESTRICTIONS** and **DIRECTIONS FOR USE**.

The following products mentioned in this label may be replaced with equivalent products:

- **COMMODOBUFF** (L 5390 / N-AR 1107) = **AQUABUFF** (L 5451 / W 130060) or **PAZBUFF** (L 5385),
- **ADVANCE 150 SC** (L 9147 / W 130689) = **ADDITION 150 SC** (L 9146 / N-AR 1508) and
- **PRIME 50 EC** (L 8660 / N-AR 1230) = **BARITONE 50 EC** (L 8659) = **LUFRON 50 EC** (L 8916).

**COMMODOBUFF**, **PRIME 50 EC**, **ADDITION 150 SC**, and/en **AQUABUFF** are registered products of / is geregistreerde produkte van **VILLA CROP PROTECTION (PTY) LTD.**

**PAZBUFF**, **ADVANCE 150 SC** and/en **BARITONE 50 EC** are registered products of / is geregistreerde produkte van **UNIVERSAL CROP PROTECTION (PTY) LTD.**

**LUFRON 50 EC** is a registered product of / is 'n geregistreerde produk van **CROPASURE (PTY) LTD.**