

Last Call[®] T.A.

Dead males don't mate[®]

Reg. No. / Nr. L11309 Act 36 of 1947

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

GROUP

3A

INSECTICIDE

An attractant and insecticide containing tomato leafminer moth pheromone and permethrin in a grease formulation for the control of tomato leafminer in tomatoes, potato, eggplant, capsicum, tobacco and Cape gooseberry, any other susceptible crops, home gardens and non-crop situations



WARNING

Hazard statements

May cause an allergic skin reaction.
Very toxic to aquatic life with long lasting effects.

Precautionary statements

Wear protective gloves.
Avoid release into the environment.

Active ingredients

Permethrin

60 g/kg

Blend of (E,Z,Z)-3,8,11-tetradecatrienyl acetate & (E,Z)-3,8-tetradecadienyl acetate

0.8 g/kg

Net mass ____ g / tube

REGISTRATION HOLDER

Insect Science (Pty) Ltd.

Reg. Nr. 2000/022528/07

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Batch No.:

Date of manufacture:

Expiry Date:

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UN No. 3077

In case of poisoning, call the following number: 0861 555 777

Emergency number 082 446 8946

WARNINGS

- Handle with care.
- Keep away from children and uninformed persons and animals.
- May cause an allergic skin reaction.
- Causes mild skin irritation.
- Very toxic to aquatic life with long lasting effects.
- Toxic to bees. The toxicological risk to biological control agents and bees is limited by the method in which **Last Call™ T.A.** is applied.
- Store away from direct sunlight, in a cool, well-ventilated area, away from food and feed.
- No pre-harvest interval is established for the use of **Last Call™ T.A.** **Last Call™ T.A.** is not applied directly onto the edible part of the crop and is not systemic. No residues are expected if used according to label instructions.

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 affected by factors such as abnormal climatic and storage conditions such as excessive winds and rain, the occurrence of resistance of pests, and by the method and timing of application. The registration holder does not accept responsibility for damage to crops, vegetation and the environment, harm to man or animal, or for the lack of performance of the remedy concerned, due to failure of the user to follow the label instructions, or the occurrence of conditions which could not have been foreseen in terms of the registration. Consult the supplier in the event of uncertainty.

PRECAUTIONS

- Wear suitable protective clothing during handling – impermeable gloves.
- Avoid contact with skin, eyes or clothing.
- Do not eat, drink or smoke during handling, wash hands and face before doing so.
- Avoid breathing vapours.
- Contaminated work clothing should not be allowed out of the workplace.
- Take off contaminated clothing and wash it before reuse.
- IF ON SKIN: Wash with plenty of water.
- If skin irritation or rash occurs: Get medical help.
- Do not apply the product to flowers or fruit and avoid contamination.
- Avoid release into the environment.
- Collect spillage.
- Do not use empty containers for any other purpose.
- Dispose of contents / container in accordance with local regulations.

RELEVANT SUBSTANCES

Permethrin (CAS 52645-53-1; 6%), UV adsorbent (CAS 125304-04-3; < 80%), amorphous silica (CAS 112945-52-5; < 5%),

FIRST AID

- Ingestion: This product is not considered to be acutely toxic by ingestion. If swallowed, wash mouth with water if person is conscious. Never give anything by mouth to an unconscious person. Obtain medical attention if necessary.
- Skin: This product is a skin sensitizer and may cause mild skin irritation or an allergic skin reaction. In case of contact, remove contaminated clothing if applicable and wash area of exposure with non-abrasive soap and copious amounts of water for several minutes. Consult a physician if irritation persists.
- Eyes: Immediately flush eyes with clean water for several minutes, holding the eyelids open. If present, remove contact lenses after 5 minutes. Continue rinsing. Consult a physician if irritation persists.
- Inhalation: This product is not expected to be acutely toxic by inhalation. If inhaled, remove the source of contamination or move victim to fresh air. Obtain medical attention if necessary.

RESISTANCE WARNING STATEMENT

Last Call™ T.A. contains permethrin which is an IRAC mode of action group 3A insecticide. Any insect population may contain individuals naturally resistant to **Last Call™ T.A.** and other group 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 **Last Call™ T.A.** or any other group 3A insecticide. To delay insecticide resistance:

- Avoid exposing consecutive generations of a pest to the same mode of action.
- Integrate other control methods (chemical, cultural, biological) into insect control programmes.

Because **Last Call™ T.A.** is an insecticide used in conjunction with a pheromone that only attracts male moths, the selection pressure on the insecticide is reduced when compared to full cover applications of the insecticide. For specific information regarding resistance management, contact the registration holder of this product or visit <https://irac-online.org/>.

MODE OF ACTION

Permethrin is a non-systemic insecticide with contact and stomach action.

PRODUCT INFORMATION

- **Last Call™ T.A.** is only effective against tomato leafminer males (*Phthorimaea absoluta*, previously known as *Tuta absoluta*). Tomato leafminer moth males are attracted to the droplet containing the species-specific sex pheromone and is exposed to a lethal dose of insecticide when it comes into contact with the droplet.
- **Last Call™ T.A.** is a targeted chemical application and will have minimal impact on non-target pests such as bees and biological control agents. The way in which **Last Call T.A.** is applied, reduces the amount of insecticide needed per hectare to control the pest and application causes no spray drift.
- **Last Call™ T.A.** is non-phytotoxic to crops when applied according to label recommendations.
- **Last Call™ T.A.** is not applied to the edible part of the crop, and will not leave residues if applied according to label recommendations.
- There is no re-entry interval with the use of **Last Call™ T.A.**

USE RESTRICTIONS AND COMPATIBILITY

- **Last Call™ T.A.** is a ready-to-use formulation and cannot be mixed with other insecticides or fungicides.

DIRECTIONS FOR USE (USE ONLY AS DIRECTED)

- The product is applied by hand using a dispenser that is pre-calibrated to deliver 50 microliter drops. Apply 2000 – 4000 drops per hectare, resulting in a dosage rate of 100 – 200 grams **Last Call™ T.A.** per hectare.
- The disposable dispenser consists of the trigger device and the cartridge containing the ready-to-use **Last Call™ T.A.** formulation. Prepare the dispenser using the following steps:
 - Connect the trigger mechanism and the product containing cylinder. Push the two parts together to break the seal. The two parts are now permanently coupled.
 - With the thumb, push the plunger until a drop of grease appears at the tip of the nozzle. The applicator is now ready to use.
 - One drop of 50 microliters will be dispensed for each squeeze of the trigger. It is advisable to place droplets on the stems of the plants on the inside of the canopy to avoid droplets being rubbed off during normal farm practices or coming into contact with the edible part of the crop.
 - Distribute droplets evenly throughout the area to be treated. Apply droplets 150 – 300 mm above ground level for maximum biological activity.

APPLICATION RATES

- For optimal results, the product must be applied before the first signs of tomato leafminer infestation. **Last Call™ T.A.** only targets adult males of the tomato leafminer, reducing the number of mating events and thus the number of eggs in the next generation. Consequently, a lag phase can be expected from the time of application to a reduction in the pest pressure.
- The number of drops per hectare is determined by the population pressure of the tomato leafminer. Apply the product according to the guidelines below.
- Re-apply **Last Call™ T.A.** within 28 days after the last application with a maximum of five applications per season.

- Do not apply **Last Call™ T.A.** to flowers or fruit and avoid contamination.
- The drops should have a spherical shape for optimal biological activity.

PEST	DOSAGE	REMARKS
Tomato leafminer (<i>Phthorimaea absoluta</i> , previously <i>Tuta absoluta</i>)	100 – 200 g/ha (2000 – 4000 droplets / ha)	Dosage depends on the population pressure. <u>For male moth control:</u> Commence application of Last Call™ T.A. as soon as tomato leafminer moths are observed. Use tomato leafminer moth pheromone traps (1 trap / 2-5 ha) to monitor moth flights. Apply at 28-day intervals. It is of critical importance to apply a registered insecticide in combination with Last Call™ T.A. to control larval stages of the tomato leafminer, especially in older fields where the pest population has built up.

LAST CALL™ is a registered trademark of Birdberry Holdings (Pty) Ltd., Tzaneen, South Africa.

INSECT SCIENCE (Pty) Ltd.

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