

MATERIAL SAFETY DATA SHEET

SECTION 1: PRODUCT IDENTIFICATION

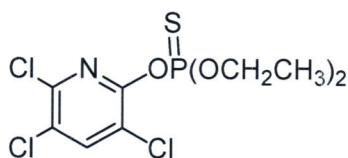
Technical name: Chlorpyrifos 480g/L + Lambda-cyhalothrin 7.5g/L EC

Chemical name:

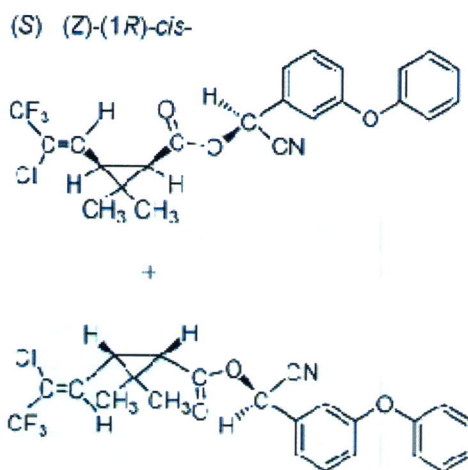
Chlorpyrifos: O, O-diethyl O-(3, 5, 6-trichloro-2-pyridinyl) phosphorothioate

Lambda-cyhalothrin: [1 α (S*),3 α (Z)]-(\pm)-cyano(3-phenoxyphenyl)methyl
 3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethylcyclopropanecarboxylate

Structural formula:



Chlorpyrifos



(R) (Z)-(1S)-cis-

Lambda-cyhalothrin

CAS No.:

Chlorpyrifos: 2921-88-2

Lambda-cyhalothrin: 91465-08-6

Chemical class: Insecticide

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SECTION 2: COMPOSITION AND INGREDIENT INFORMATION

Chlorpyrifos	480g/L
Lambda-cyhalothrin	7.5g/L

SECTION 3: HEALTH HAZARD INFORMATION

Emergency overview: Harmful by inhalation and if swallowed. Keep out of the reach of children.

SECTION 4: FIRST AID MEASURES

Ingestion: Do not induce vomiting. Remove by gastric lavage and catharsis. Maintain blood pressure and airway. Give oxygen if respiration is depressed. Do not perform gastric lavage if victim is unconscious. Get medical attention immediately. Administration of gastric lavage or oxygen should be performed by qualified medical personnel.

Eyes: In case of eye contact, check for and remove any contact lenses. Immediately irrigate eyes with plenty of running water for at least 20 minutes, keeping eyelids open. Seek immediate medical attention.

Skin: If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes.

Inhalation: Remove victim to fresh air. Keep victim warm and at rest. If breathing is difficult: Give oxygen. If not breathing: apply artificial respiration. Immediately get medical attention.

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SECTION 5: FIRE AND EXPLOSION INFORMATION

Extinguishing media:

In case of a small fire: Dry chemical, carbon dioxide.

In case of a large fire: Water spray or alcohol resistant foam.

Hazards from combustion products: CO, CO₂, SO_x, NO_x, PO_x, HCl, chlorides and sulfides.

Fire fighting instructions: Fight fires from a protected location. Dike fire control water for later disposal. Keep container cool by spraying with water.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions: Avoid contact with skin and eyes. Do not breathe in fumes. Wear full protective clothing.

In case of spill or leak:

In the event of minor spillage: Absorb in sand or other inert material. Use appropriate containment to avoid environmental contamination.

In the event of major spillage: Collect and contain as much free liquid as possible. Dike spills using absorbent or impervious materials such as sand or clay for later disposal.

SECTION 7: HANDLING AND STORAGE

Handling: Remove sources of naked flame or sparks. Harmful by inhalation or if swallowed. Avoid contact with eyes and skin and inhalation of fumes. Use with adequate ventilation. Wash hands before eating, drinking, chewing gum, smoking or using the toilet. Operators should change and wash clothing daily. Remove clothing immediately if the insecticide gets inside. Then wash skin thoroughly using a non-abrasive soap and put on clean clothing. Do not apply directly to areas where surface water is present, or to intertidal



areas below the mean high water mark. Water used to clean equipment must be disposed of correctly to avoid contamination

Storage: Store in its original container in isolated, dry, cool and wellventilated area. Avoid cross contamination with other pesticides and fertilisers. Keep under lock and key out of reach of unauthorised persons, children and animals. Store away form incompatible substances. Not to be stored next to foodstuffs and water supplies. Local regulations should be complied with.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measures: Ventilation required. Facilities storing or utilizing this material should be equipped with an eyewash facility and safety shower.

Personal protective equipment:

Respiratory system: During spraying wear suitable respiratory equipment.

Skin and body: Wear suitable protective clothing.

Hands: Wear suitable gloves.

Eyes: Safety goggles or face shield.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid

Odor: Characteristic

pH: 4.0-7.0

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SECTION 10: STABILITY AND REACTIVITY INFORMATION

Stability: Stable under normal conditions of handling and storage.



Conditions to avoid: Protect from (sun) light and excessive heat. Avoid temperatures above 75 °C.

Hazardous decomposition: CO, CO₂, SO_x, NO_x, PO_x, HCl, chlorides and sulfides.

Incompatible hazardous: Strong oxidizing agents, strong acids, strong bases.

Hazardous polymerization: Has not been reported.

SECTION 11: TOXICOLOGICAL INFORMATION

For Chlorpyrifos tech

Oral: Acute oral LD₅₀ for rats 135-163, guinea pigs 504, rabbits 1000-2000 mg/kg.

Skin and eye: Acute percutaneous LD₅₀ for rabbits >5000 mg/kg; (tech.) for rats >2000 mg/kg. Mild skin and moderate eye irritant (rabbits). Not a skin sensitiser (guinea pigs).

Inhalation: LC₅₀ (4-6 h) for rats >0.2 mg/l (14 ppb).

For Lambda-cyhalothrin tech:

Oral: Acute oral LD₅₀ for male rats 79, female rats 56 mg/kg.

Skin and eye: Acute percutaneous LD₅₀ for rats 632-696 mg/kg. Mild eye irritant; non-irritant to skin (rabbits). Not a skin sensitiser (guinea pigs).

Inhalation: LC₅₀ (4 h) for rats 0.06 mg/l air (total particulate).

SECTION 12: ECOLOGICAL INFORMATION

For Chlorpyrifos tech

Birds: Acute oral LD₅₀ for mallard ducks 490, house sparrows (*Passer domesticus*) 122, chickens 32-102 mg/kg. Dietary LC₅₀ (8 d) for bobwhite quail 423 ppm.

Fish: LC₅₀ (96 h) for bluegill sunfish 0.002-0.010, rainbow trout 0.007-0.051, roach 0.25, fathead minnow 0.12-0.54 mg/l.

Daphnia: LC₅₀ (48 h) 1.7 µg/l.

Algae: NOEC for *Selenastrum capricornutum* >0.4 mg/l.

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Bees: Toxic to bees. LD₅₀ (oral) 360 ng/bee; (contact) 70 ng/bee.

Worms: LC₅₀ (14 d) for *Eisenia foetida* 210 mg/kg soil.

For Lambda-cyhalothrin tech:

Birds: Acute oral LD₅₀ for mallard ducks >3950 mg/kg. Dietary LC₅₀ for quail >5300 mg/kg. No accumulation of residues in eggs or tissues.

Fish: LC₅₀ (96 h) for bluegill sunfish 0.21, rainbow trout 0.36 µg/l.

Daphnia: Intrinsic toxicity to aquatic organisms is greatly reduced by rapid loss from the water by adsorption and degradation: EC₅₀ (72 h) in water 0.26 µg/l, in water/sediment 31 µg/l.

Algae: E_rLC₅₀ (96 h) for *Selenastrum capricornutum* >1000 µg/l.

Bees: LD₅₀ (oral) 909 ng/bee; (contact) 38 ng/bee.

Worms: LC₅₀ for *Eisenia foetida* >1000 mg/kg soil.

SECTION 13: DISPOSAL CONSIDERATIONS

Pesticide disposal: Contaminated absorbents, surplus product, etc., should be burned in a high-temperature incinerator (> 1000 °C) with effluent gas scrubbing. Where no incinerator is available surplus product should be or diluted and buried in designated landfill. Never pour untreated waste or surplus products into public sewers or where there is any danger of run-off or seepage into water systems. Comply with local legislation applying to waste disposal.

Package product wastes: Emptied containers retain vapour and product residues. Observe all labelled safeguards until container is destroyed. Combustible containers should be disposed of in pesticide incinerators. Non-combustible containers must be triple rinsed with water and then be punctured and transported to a scrap metal facility for recycling or disposal in approved landfill site. Comply with any local legislation applying to disposal.

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SECTION 14: TRANSPORT INFORMATION

Not available. Do not transport with foodstuff.

SECTION 15: REGULATORY INFORMATION


Safety phrases:

- S 1 Keep locked up
- S 2 Keep out of reach of children
- S 16 Keep away from sources of ignition – No smoking
- S 23 Do not breathe vapour/spray
- S 24/25 Avoid contact with skin and eyes
- S 28 After contact with skin, wash immediately with plenty of water and non-abrasive soap.
- S 36/37/39 Wear protective clothing gloves and eye/face protection.
- S 45 In case of accident or if you feel unwell, seek medical advice immediately

SECTION 16: OTHER INFORMATION

The information contained in the Safety Data sheet is correct to the best of our knowledge at the date of issue. It is intended as a guide for the safe use, handling, disposal, storage and transportation and is not intended as a warranty or as a specification. The information relates only to the product specified and may not be suitable for combinations with other materials or in processes other than those specifically described herein. Buyer assumes all responsibility for safety and use not in accordance with the product label instructions.

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