

1: IDENTIFICATION

Chemical Name	Lambda Cyhalothrin: [(R)-cyano-(3-phenoxyphenyl)methyl] (1S,3S)-3-[(Z)-2-chloro-3,3,3-trifluoroprop-1-enyl]-2,2-dimethylcyclopropane-1-carboxylate		
Synonyms	Lambda-cyhalothrin 4.9% CS	Trade Name	LAMBADA
Uses	Insecticide	Molecular Formula	C ₂₃ H ₁₉ ClF ₃ NO ₃
Manufacturer/Supplier	Ulink AgriTech Pvt. Ltd. Office Nos. 001 And 002, Ground Floor Wing "A" And Nos. 003 And 004 Ground Floor Wing "B", Nyati Tech Park, Wadgaon Sheri, Pune - 411014, Maharashtra		
Emergency Contact	9503095030	E-mail	info@agrostar.in

2: COMPOSITION/INFORMATION OF INGREDIENTS

Chemical Name	CAS #	Percent or Content (w/w)
Lambda Cyhalothrin	91465-08-6 415-130-7	4.6%
Solvent naphtha (petroleum), highly aromatic.	64742-94-5 265-198-5	1 - 5 %
1,2-benzisothiazol-3(2H)-one	2634-33-5	0.05 - 1 %

3: HAZARD IDENTIFICATION

Hazard Classification:	Acute toxicity Category 4	Skin sensitization Category 1	Aquatic toxicity acute & chronic Category 1
Health Hazard:	H302 Harmful if swallowed	H332 Harmful if inhaled	H317 May cause an allergic skin reaction
Environmental Hazard:	H400 Very toxic to aquatic life	H410 Very toxic to aquatic life with long lasting effect	

4: FIRST AID MEASURES

General: Have the product container, label or safety data sheet while seeking medical attention, a poison control center or physician, or going for treatment.

Inhalation: Move patients to fresh air. Keep the patients warm and at rest. If person is not breathing then give artificial respiration. Allow patients to rest. Immediately seek medical attention.

Ingestion: Rinse mouth with water and give plenty of water to drink. Do not induce vomiting unless told by doctor. Do not give anything by mouth to an unconscious person. Seek medical attention immediately and show this container or label.

Skin Contact: In case of contact with product, wash immediately skin area with plenty of water and soap. Speed in removing material from skin is extremely important. Remove and isolate contaminated clothing and shoes. Call medical attention.

Eye Contact: Rinse immediately with plenty of water for several minutes. After 5 minutes remove contact lenses if present and continue rinsing with plenty of water. Continue to rinse with eyelid wide open for at least 15-20 minutes. Seek medical attention if irritation develops.

Note to Physician: Aspiration may cause pulmonary edema and pneumonitis. Skin contact paresthesia effects (itching, tingling, burning or numbness) are transient, lasting up to 24 hours. Do not induce vomiting as product contains petroleum distillates and/or aromatic solvents. Treat symptomatically.

5: FIRE FIGHTING MEASURES

Extinguishing Media: Water spray, alcohol-resistant foam, dry chemical powder or carbon dioxide

Unsuitable Extinguishing Media: Solid water stream, as it may scatter or spread the fire.

Specific Hazards: In case of fire, product may produce dense black smoke containing hazardous products of combustion as it contain combustible organic ingredients and exposure to this smoke may be a hazard to health.

Hazardous Thermal (de)composition: May release irritating and toxic gases due to thermal decomposition

Special Procedures: Evacuate area and fight fire upwind from a safe distance. Foam or dry chemical fire extinguishing systems are preferred to prevent environmental damage from excessive water runoff. Minimize use of water to prevent environmental contamination. Dike and collect water used to fight fire to prevent environmental damage due to runoff. Do not discharge extinguishing water into the drain or water bodies.

Protection of Fire Fighters: Do not breathe a fumes. Wear a self contained breathing apparatus. Wear suitable protective gloves and eye/face protection.

6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing fume. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from spill/ fumes.

Environmental Precaution: Do not allow runoff to enter drains and public waters. Notify the authorities if product enters.

Methods for Cleaning-up: Collect spilled liquid with non-combustible absorbent material such as sand, earth, diatomaceous earth, vermiculite and place in waste disposal container. Clean contaminated floors and objects thoroughly with water and detergents. If significant amount of product enters into drain, notify the local authorities.

7: HANDLING & STORAGE

Handling: Do not smoke, drink, or eat during handling. Wash hands using liquid detergent. Wear protective clothing to avoid contact and/or inhalation with the product. No special protective measures against fire required. Good personal hygiene procedures must be practiced.

Specific Conditions: Good local exhaust ventilation.

Storage: Store in dry, cool, well-ventilated area. Keep in original container and tightly closed when not in use. Store in locked room and away from children, seeds, fertilizer, foods and animal feeds.

8: EXPOSURE CONTROL/PERSONAL PROTECTION

Engineering measures: Ensure area is well-ventilated and set up emergency exits and the risk-elimination area. Handle in accordance with good industrial hygiene and safety practice.

General Protection: Avoid contact with eyes and skin. While handling the product wear cotton overalls buttoned to the neck and wrist, elbow-length PVC gloves and face shield. After use and before eating, drinking and smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves and contaminated clothing.

Personal Protection: Follow all precautions and instructions on the label. In all other cases the following recommendations would apply.

Respiratory Protection: Always use NIOSH/MSHA approved respiratory protection equipment. Use a self-contained breathing apparatus in cases of emergency spills, when exposure levels are unknown, or under any circumstances where air-purifying respirators may not provide adequate protection.

Skin Protection: Wear suitable protective clothing, including boots, gloves, lab coat, apron or cover all, as appropriate to avoid skin contact. Any clothing or other absorbent material which has been drenched or heavily contaminated must be discarded.

Hand Protection: Chemical-resistant gloves made of any waterproof material such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyvinyl chloride (PVC) or Viton.

Eye Protection: Safety goggles, chemical splash goggles or face shield for eyes protection should be used. Safety showers and eyewash should be easily available.

Others: Wash clothing before reusing.

9: PHYSICAL/CHEMICAL PROPERTIES

Appearance: Liquid	Odour: Weak Aromatic	Colour: Off-white	Solubility in Water: Miscible	Boiling Point [°C]: 100
Physical State: Liquid	pH: 4.0 - 6.5 (1% aqueous solution)		Flash Point [°C]: > 93	Density[g/mL]: 1.028

10: STABILITY & REACTIVITY

Stability: Stable upto 2 years under normal circumstances.

Hazardous Decomp. Products: May release irritating and toxic gases or vapours

Conditions to Avoid: No data available

Material to Avoid: No data available **Hazardous Reactions:** No hazardous reactions by normal handling and storage according to provisions

11: TOXICOLOGICAL INFORMATION

Rat oral LD50 [mg/kg] : 612	Rat inhalation LC50 [g/l/4h] : >2.09	Skin irritation (rabbit): Practically non-irritating. May cause paresthesia
Dermal (rat) LD50 [mg/kg]: >2000	Skin Sensitization (Guinea Pig): Sensitizer	Eye irritation (rabbit): Mildly irritant

12: ECOLOGICAL INFORMATION

Crap fish LC50 (96 h)[mg/L]: >12

Daphnia EC50 (48 h) [mg/L]: > 2.6

Bio-accumulation Potential: Not very bioaccumulates

Persistence, Degradability and Mobility in Soil: Not persistent in soil or water; Immobile in soil; Sinks in water (after 24 h).

13: DISPOSAL CONSIDERATION

Waste-disposal Procedures: Dispose of this product only according to the label. Do not contaminate drains, streams, rivers or waterways with the chemical or used container. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations.

Contaminated Packaging: Empty remaining contents and the rinse containers thrice before disposal. Empty containers should be taken to an approved waste handling site for recycling or disposal, or dispose off according to label instructions and local regulations. Do not reuse empty containers unless they are specifically designed to be refilled.

14: TRANSPORT INFORMATION

UN No. 3082 **Proper Shipping Name:** Environmentally Hazardous substances, liquid, N.O.S (Lambda-Cyhalothrin)

Land Transport (ADR/RID): Class-9, Packaging group-III

Sea Transport (IMO/ IMDG): Class-9, Packaging group-III, Marine Pollutant - Yes

Air Transport (IATA / ICAO): Class-9, Packaging group-III, Environmental hazards mark - Yes

15: REGULATORY INFORMATION

Hazard Symbol: GHS09

Phrases R: R20/22, R43, R50/ 53 **Phrases S:** S2, S 13, S 20/21, S35, S 36/37, S57 **H-statement:** H302, H317, H332, H400, H410

16: OTHER INFORMATION

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