



SHREEJI PESTICIDES PVT. LTD
(A SUBSIDIARY OF WILLOWOOD CHEMICALS PVT. LTD)

Material safety data sheet LAMBDA CYHALOTHRIN 4.9% CS

1. IDENTIFICATION OF COMPANY & PRODUCT

Product Name : Lambda-cyhalothrin 4.9% CS
Chemical Name : (S) -cyano-3-phenoxybenzyl (Z)-(1R, 3R)-3-(2-chloro-3, 3, 3-trifluoroprop-1-enyl)-2, 2-dimethylcyclopropanecarboxylate and (R) -cyano-3-phenoxybenzyl (Z)-(1S, 3S)-3-(2-chloro-3, 3, 3-trifluoroprop-1-enyl)-2, 2-dimethylcyclopropanecarboxylate
Uses : Insecticide
Molecular Formula : C₂₃H₁₉ClF₃NO₃
Manufacturer : Shreeji Pesticides Pvt. Ltd.
Address : Plot No. 69/P, Village - Manjusar, Taluka - Savli, Dist. Vadodara - 391775
Gujarat, India :
Tele Fax Number 91 2667 264701

2. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Cas #	Percent Or Content(W/W)
Lambda-cyhalothrin	91465-08-6 415-130-7	4.9 % W/W
Solvent naphtha (petroleum), highly aromatic.	64742-94-5 265-198-5	1 - 5 % W/W
1,2-benzisothiazol-3(2H)-one	2634-33-5	0.05 - 1 % W/W

3. HEALTH HAZARDS IDENTIFICATION

Classification of the substance or mixture

Classification according to Regulation (EU) 1272/2008

Acute toxicity	Category 4	H332
Acute toxicity	Category 4	H302
Skin sensitization	Category 1	H317
Acute aquatic toxicity	Category 1	H400
Chronic aquatic toxicity	Category 1	H410

Supplemental information: EUH401 to avoid risks to human health and the environment, comply with the instructions for use.



SHREEJI PESTICIDES PVT. LTD
(A SUBSIDIARY OF WILLOWOOD CHEMICALS PVT. LTD)

Material safety data sheet LAMBDA CYHALOTHRIN 4.9% CS

Hazardous components which must be listed on the label:

- Lambda-cyhalothrin
- 1, 2-benzisothiazol-3(2H)-one

R-phrase(s)	: R20/22	Harmful by inhalation and if swallowed.
	R43	May cause sensitization by skin contact.
	R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
S-phrase(s)	: S 2	Keep out of the reach of children.
	S13	Keep away from food, drink and animal feeding stuffs.
	S20/21	When using do not eat, drink or smoke.
	S35	This material and its container must be disposed of in a safe way.
	S36/37	Wear suitable protective clothing and gloves.
S57	Use appropriate container to avoid environmental contamination.	

Other hazards

This mixture contains no substance considered to be very persistent nor very bio accumulating (vPvB).

4. FIRST AID MEASURES

Description of first aid measures

General advice: Have the product container, label or Material Safety Data Sheet with you when calling the Syngenta emergency number, a poison control center or physician, or going for treatment.

Inhalation: Move the victim to fresh air. If breathing is irregular or stopped, administer artificial respiration. Keep patient warm and at rest. Call a physician or poison control center immediately.

Skin contact: Take off all contaminated clothing immediately. Wash off immediately with plenty of water. If skin irritation persists, call a physician. Wash contaminated clothing before re-use.

Eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. Immediate medical attention is required.

Ingestion: If swallowed, seek medical advice immediately and show this container or label. Do NOT induce vomiting.

Most important symptoms and effects, both acute and delayed Symptoms: Aspiration may cause pulmonary edema and pneumonitis. Skin contact paresthesia effects (itching, tingling, burning or numbness) are transient, lasting up to 24 hours.

Indication of any immediate medical attention and special treatment needed Medical advice : Do not induce vomiting: contains petroleum distillates and/or aromatic solvents. Treat symptomatically.



SHREEJI PESTICIDES PVT. LTD
(A SUBSIDIARY OF WILLOWOOD CHEMICALS PVT. LTD)

Material safety data sheet LAMBDA CYHALOTHRIN 4.9% CS

5. FIRE FIGHTING MEASURES

Extinguishing media **extinguishing media - small fires**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Extinguishing media - large fires

Alcohol-resistant foam or Water spray

Do not use a solid water stream as it may scatter and spread fire.

Special hazards arising from the substance or mixture

As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion (see section 10). Exposure to decomposition products may be a hazard to health.

Advice for firefighters

Wear full protective clothing and self-contained breathing apparatus. Do not allow run-off from firefighting to enter drains or water courses. Cool closed containers exposed to fire with water spray.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Refer to protective measures listed in sections 7 and 8.

Environmental precautions Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

Methods and materials for containment and cleaning up Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). If the product contaminates rivers and lakes or drains inform respective authorities.

Reference to other sections

Refer to protective measures listed in sections 7 and 8.

Refer to disposal considerations listed in section 13.

7. HANDLING AND STORAGE

Precautions for safe handling



SHREEJI PESTICIDES PVT. LTD
(A SUBSIDIARY OF WILLOWOOD CHEMICALS PVT. LTD)

Material safety data sheet LAMBDA CYHALOTHRIN 4.9% CS

No special protective measures against fire required. Avoid contact with skin and eyes. When using do not eat, drink or smoke. For personal protection see section 8.

Conditions for safe storage, including any incompatibilities

No special storage conditions required. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Keep away from food, drink and animal feeding stuffs.

: Physically and chemically stable for at least 2 years when stored in the original unopened sales container at ambient temperatures.

Specific end uses

Registered Crop Protection products: For proper and safe use of this product, please refer to the approval conditions laid down on the product label.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

The following recommendations for exposure controls/personal protection are intended for the manufacture, formulation and packaging of the product.

Exposure controls

Engineering measures: Containment and/or segregation is the most reliable technical protection measure if exposure cannot be eliminated. The extent of these protection measures depends on the actual risks in use. If airborne mists or vapors are generated, use local exhaust ventilation controls. Assess exposure and use any additional measures to keep airborne levels below any relevant exposure limit. Where necessary, seek additional occupational hygiene advice.

Protective measures: The use of technical measures should always have priority over the use of personal protective equipment. When selecting personal protective equipment, seek appropriate professional advice. Personal protective equipment should be certified to appropriate standards.

Respiratory protection: A combination gas, vapor and particulate respirator may be necessary until effective technical measures are installed. Protection provided by air-purifying respirators is limited. 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.

Hand protection: Chemical resistant gloves should be used. Gloves should be certified to an appropriate standard. Gloves should have a minimum breakthrough time that is appropriate to the duration of exposure. The breakthrough time of gloves varies according to the thickness, material and manufacturer. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. Suitable material-Nitrile rubber.

Eye protection: Eye protection is not usually required. Follow any site specific eye protection policies.



SHREEJI PESTICIDES PVT. LTD
(A SUBSIDIARY OF WILLOWOOD CHEMICALS PVT. LTD)

Material safety data sheet LAMBDA CYHALOTHRIN 4.9% CS

Skin and body protection: Assess the exposure and select chemical resistant clothing based on the potential for contact and the permeation / penetration characteristics of the clothing material. Wash with soap and water after removing protective clothing. Decontaminate clothing before re-use, or use disposable equipment (suits, aprons, sleeves, boots, etc.)

Wear as appropriate: impervious protective suit

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	: liquid
Form	: liquid
Colour	: off-white
Odour	: aromatic, weak
Odour Threshold	: no data available
PH	: 4.0 – 6.5
Melting point/range	: no data available
Boiling point/boiling range	: 100 °C
Flash point	: > 93 °C
Evaporation rate	: no data available
Flammability (solid, gas)	: no data available
Lower explosion limit	: no data available
Upper explosion limit	: no data available
Vapor pressure	: no data available
Relative vapor density	: no data available
Density	: 1.028 g/cm ³
Solubility in other solvents	: Miscible in Water
Partition coefficient	
Octanol/water	: no data available
Auto ignition temperature	: no data available
Thermal decomposition	: no data available
Viscosity, dynamic	: no data available
Viscosity, kinematic	: no data available
Explosive properties	: Not explosive
Oxidizing properties	: not oxidizing
Other information	: no data available



SHREEJI PESTICIDES PVT. LTD
(A SUBSIDIARY OF WILLOWOOD CHEMICALS PVT. LTD)

Material safety data sheet LAMBDA CYHALOTHRIN 4.9% CS

10. STABILITY AND REACTIVITY

Reactivity	No information available.
Chemical stability	No information available.
Possibility of hazardous Reactions	none known. Hazardous polymerization does not occur.
Conditions to avoid	No information available.
Incompatible materials	No information available.
Hazardous decomposition Products	Combustion or thermal decomposition will evolve toxic and irritant vapors.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute oral toxicity	: Median lethal dose male rat, 612 mg/kg : Median lethal dose female rat, 522 mg/kg
Acute inhalation Toxicity	: LC50 female rat, > 2.09 mg/l, 4 h
Acute dermal Toxicity	: Median lethal dose male and female rat, > 2,000 mg/kg
Skin corrosion/ Irritation	: rabbit: Practically non-irritating. May cause temporary itching, tingling, burning or numbness of exposed skin, called paresthesia.
Serious eye damage /eye irritation	: rabbit: Mildly irritating
Respiratory or skin sensitization	: Man: Likely to cause skin sensitization.
Germ cell mutagenicity	Lambda-cyhalothrin: Did not show mutagenic effects in animal experiments.
Carcinogenicity	lambda-cyhalothrin: Did not show carcinogenic effects in animal experiments.
Reproductive toxicity	lambda-cyhalothrin: Did not show reproductive toxicity effects in animal experiments.
STOT - repeated exposure	lambda-cyhalothrin: No adverse effect has been observed in chronic toxicity tests.



SHREEJI PESTICIDES PVT. LTD
(A SUBSIDIARY OF WILLOWOOD CHEMICALS PVT. LTD)

Material safety data sheet LAMBDA CYHALOTHRIN 4.9% CS

12. ECOLOGICAL INFORMATION

Toxicity

Toxicity to fish : LC50 *Cyprinus carpio* (Carp), ca. > 12 lg/l , 96 h Based on test results obtained with similar product.

Toxicity to aquatic invertebrates

: EC50 *Daphnia magna* (Water flea), > 2.6 lg/l, 48 h Based on test results obtained with similar product.

Persistence and degradability

Stability in water

Lambda-cyhalothrin : Degradation half-life: 7 d Not persistent in water

Stability in soil

Lambda-cyhalothrin : Degradation half-life: 56 d Not persistent in soil.

Bio accumulative potential

Lambda-cyhalothrin : Lambda-cyhalothrin bio accumulates.

Mobility in soil

Lambda-cyhalothrin : Lambda-cyhalothrin is immobile in soil.

Results of PBT and vPvB assessment: This mixture contains no substance considered to be very persistent nor very bio accumulating (vPvB).

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Product: Do not contaminate ponds, waterways or ditches with chemical or used container. Do not dispose of waste into sewer. 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. Triple rinse containers. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

14. TRANSPORT INFORMATION

Land transport (ADR/RID)

UN number : UN 3082

UN proper shipping



SHREEJI PESTICIDES PVT. LTD
(A SUBSIDIARY OF WILLOWOOD CHEMICALS PVT. LTD)

Material safety data sheet LAMBDA CYHALOTHRIN 4.9% CS

Name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(LAMBDA-CYHALOTHRIN)

Transport hazard

Class (es) : 9

Packing group : III

Labels : 9

Environmental

Hazards : Environmentally hazardous

Sea transport (IMDG)

UN number : UN 3082

UN proper shipping

Name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(LAMBDA-CYHALOTHRIN)

Transport hazard

Class (es) : 9

Packing group : III

Labels : 9

Environmental

Hazards : Marine pollutant

Air transport (IATA-DGR)

UN number : UN 3082

UN proper shipping

Name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(LAMBDA-CYHALOTHRIN)

Transport hazard

Class (es) : 9

Packing group : III

Labels : 9

Special precautions for user none

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code not applicable

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

GHS-Labeling



SHREEJI PESTICIDES PVT. LTD
(A SUBSIDIARY OF WILLOWOOD CHEMICALS PVT. LTD)

Material safety data sheet LAMBDA CYHALOTHRIN 4.9% CS

Signal word	: Warning
Hazard statements	: H302 + H332 Harmful if swallowed or if inhaled. H317 May cause an allergic skin reaction. H410 Very toxic to aquatic life with long lasting effects.
Precautionary Statements	: P102 Keep out of reach of children. P270 Do not eat, drink or smoke when using this product. P280 Wear protective gloves/ protective clothing. P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P391 Collect spillage. P501 Dispose of contents/ container to an approved waste disposal plant.
Supplemental Information	: EUH401 to avoid risks to human health and the environment, comply with the instructions for use.
Remarks	: Classified using all GHS hazard classes and categories. Where the GHS contains options, the most conservative option has been chosen. Regional or national implementations of GHS may not implement all hazard classes and categories.

Hazardous components which must be listed on the label:

- Lambda-cyhalothrin
- 1, 2-benzisothiazol-3(2H)-one

Chemical Safety Assessment

A Chemical Safety Assessment is not required for this substance.

16. OTHER INFORMATION

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may



SHREEJI PESTICIDES PVT. LTD
(A SUBSIDIARY OF WILLOWOOD CHEMICALS PVT. LTD)

Material safety data sheet
LAMBDA CYHALOTHRIN 4.9% CS

not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

