

MATERIAL SAFETY DATA SHEET

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Issue Date: 06/29/2007

Chemtrec: (800) 424-9300

Section 1 Name & Hazard Summary

Material name: LambdaStar 9.7% CS

Hazard summary (as defined by OSHA Hazard Comm. Std., 29 CFR 1910.1200):

Physical hazards: None.

Health hazards: Irritant (eye, skin, respiratory passages, skin sensitizer).

Read the entire MSDS for a more thorough evaluation of the hazards.

Section 2

INGREDIENTS	%	ACGIH TLV
***Lambda-cyhalothrin (PP321 Technical) (CAS 91465-08-6)	9.7	Not listed
Other ingredients	90.3	
Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.		

Section 3 PHYSICAL DATA

Appearance and odor: White liquid, mild chemical odor
 pH: 4.19
 Specific gravity/Bulk Density: 8.32 lbs/gal
 Viscosity: 1,500 centipoises at 20 rpm using a #2 spindle @ 24° C
 centistokes

Section 4 FIRE AND EXPLOSION HAZARD DATA

Flash point: Not applicable
 Autoignition temperature: No data
 Flammable limits (STP): Not applicable

Extinguishing media:

Water fog, foam, carbon dioxide, dry chemical, halogenated agents.

Special fire fighting protective equipment:

Self-contained breathing apparatus with full facepiece and protective clothing.

Unusual fire and explosion hazards:

Possible toxic smoke, vapors, fallout and runoff water can result from fires depending on extent of combustion and presence of other combustible materials. Contaminated buildings, areas, and equipment must be properly decontaminated before reuse.

Section 5 REACTIVITY DATA

Stability: Stable under normal conditions.

Incompatibility: Oxidizing agents, alkalies, calcium hypochlorite.

Hazardous decomposition products: Combustion products: Carbon dioxide, carbon monoxide. Nitrogen oxides, ammonia, cyanuric acid, biuret. Halogen, halogen acids, possible trace amounts of carbonyl halide.

Hazardous polymerization: Will not occur.

Section 6 HEALTH HAZARD ASSESSMENT**General:**

Toxicity data are available on this specific product; this health hazard assessment is based on the results of screening tests.

Ingestion:

The acute oral toxicity in rat is greater than 300 mg/kg. This material is classified as "moderately toxic" by ingestion.

Eye contact:

A 2% v/v spray strength dilution was tested using three rabbits. No corneal or iridial effects. Slight irritation may occur following exposure to this material.

Skin Contact:

This material is mildly irritating in rabbit dermal irritation studies. Short contact periods with human skin will probably not produce irritation. Irritation can develop following repeated and/or prolonged contact with human skin. This material was a skin sensitizer in animal testing. Skin sensitization and irritation may develop after repeated and/or prolonged contact with human skin.

Exposure to Lambda-cyhalothrin may cause a skin sensation called paresthesia, which is usually described as tingling, itching, burning, prickling, glowing, flushing, numbness or a chapped feeling. Symptoms usually occur around the mouth and eyes but may involve the arms or hands. Symptoms may develop shortly after exposure or can be delayed up to four hours and can persist between 2 and 30 hours following contact. There is no evidence of any long-term or cumulative effects on the skin. The effect may result from transferring the material to the face from contaminated gloves and hands.

Skin absorption:

The acute dermal toxicity is >2000 mg/kg for this material. Systemically toxic concentrations of this product will not be absorbed through human skin.

Inhalation:

The inhalation toxicity in rat is >2.20 mg/l. Particulates of this material will probably irritate respiratory passages.

Other effects of overexposure:

Studies using laboratory animals exposed to high levels of the active ingredient lambda-cyhalothrin have shown that lambda-cyhalothrin may induce neurotoxic effects such as staggering gait, muscle tremors and convulsions.

First aid procedures:

<u>FIRST AID</u>	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact the Poison Control Center 800-222-1222.	
If swallowed	• Call poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless directed to do so by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If on skin or clothing	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If inhaled	• Move person to fresh air. • If person is not breathing, give artificial respiration, preferably mouth to mouth if possible. • Call a poison control center or doctor for further treatment advice.
If in eyes	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.

Section 7 SPILL OR LEAK PROCEDURES**Steps to be taken in case material is released or spilled:**

This material is harmful to aquatic organisms. Releases to natural waters should be reported to appropriate water pollution control authorities. Releases of untreated effluent to the sewer should be immediately reported to the public treatment works.

Make sure all personnel involved in the spill cleanup follow good industrial hygiene practices. A small spill can be handled routinely. Use adequate ventilation to prevent inhalation. Wear suitable protective clothing and eye protection to prevent skin and eye contact. Use the following procedures:

1. Do not allow material to enter streams, sewers or other waterways.
2. Spread absorbent on the liquid such as clay, sand, sawdust, or dirt. Sweep up and place in a suitable container for disposal and label the contents.
3. Rinse with a small amount of water and use absorbent to collect the wash solution. Absorb any excess liquid as indicated above, and add to the disposal container.
4. Seal drum and dispose of contaminated material in a facility permitted for hazardous waste. Large spills should be handled according to a spill plan. Otherwise, in case of emergency call, day or night, 800-424-9300, Chemtrec.

Disposal method:

This material is toxic to fish. Do not contaminate waterways by cleaning of equipment or by disposal of wastes. Untreated effluent should not be discharged where it will drain into lakes, streams, or ponds. Discarded product is not a hazardous waste under RCRA, 40 CFR 261.

Container disposal:

Observe all hazard precautions. Do not distribute, make available, furnish or reuse empty containers. Triple rinse (or equivalent). Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

*****Section 8 SPECIAL PROTECTION INFORMATION**

TLV® or suggested control value:

No ACGIH TLV or OSHA PEL is assigned to this mixture. Control of exposure to below the PEL for the ingredients (see Section 2) may not be sufficient. Minimize exposure in accordance with good hygiene practice. The manufacturer of the solvent recommends an exposure limit of 50 ppm as an 8-hr TWA.

Ventilation:

Manufacturing: Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines.

End Use: Generally not required when treatment dilution is used but local exhaust or ventilation may be used if necessary.

Respiratory protection: Not normally needed for this product when tablet is diluted in water for end-use application. When needed, use MSHA/NIOSH approved respirator for pesticides.

Protective clothing:

This product is FIFRA regulated. Refer to product labeling for required end-user personal protection equipment. Skin contact should be prevented through the use of impervious gloves, long-sleeved shirts and long pants. Remove contaminated clothing and wash before rewearing. Wash separately from other laundry.

Eye protection:

Eye contact with the material should be avoided through the use of chemical safety glasses, goggles or a faceshield, selected in regard to exposure potential.

Other protective equipment:

An adequate supply of clean potable water should be available to allow thorough flushing of skin and eyes in event of contact with this compound.

Section 9 SPECIAL PRECAUTIONS OR OTHER COMMENTS**Special precautions or other comments:**

Prevent skin and eye contact. Observe OSHA PEL limitations. Avoid breathing vapors. A sensitized individual should not be exposed to the product which caused the sensitization. Do not store near feed, food, or within the reach of children. Containers should be stored in a cool, dry, well-ventilated area away from flammable materials and sources of heat or flame. Exercise due caution to prevent damage to or leakage from the container. Workers must follow good hygiene practices to avoid accidental ingestion.

Section 10 REGULATORY INFORMATION

TSCA (Toxic Substances Control Act) Regulations, 40CFR 710:

This product is a pesticide and is exempt from TSCA regulation.

CERLA and SARA Regulations (40 CFR 355, 370, and 372):

This product does not contain any chemicals subject to the reporting requirements of SARA Section 313.

Other Determined Regulations:

EPA Reg. No.: 53883-XXX

Other Information:

We assigned NFPA and HMIS ratings to this product based on the hazards of its ingredient (s). Because the customer is most aware of the application of the product, he must ensure that the proper personal protective equipment (PPE) is provided consistent with information contained in the product MSDS.*

NFPA	HMIS
1 Health	2 Health
0 Flammability	0 Flammability
0 Reactivity	0 Reactivity
Special Hazards	PPE ¹
*This information is intended solely for the use of individuals trained in the particular hazard rating system.	
¹ See appropriate MSDA section	

The information herein is given in good faith but no warranty, expressed or implied, is made.

***This line or section contains revisions or new statements since the last issue date.