

Material Safety Data Sheet

Effective Date: 30-NOV-2004  
Product: HELENA LAMBDA

I. IDENTIFICATION

Chemical Name: Lambda-Cyhalothrin  
Chemical Family: Pyrethroid Insecticide  
Formula: Not applicable, formulated mixture.  
Synonyms: None  
CAS Number: 91465-08-6  
EPA Number: 100-1097-5905

II. PHYSICAL DATA

Boiling Point: Not available  
Freezing Point: Not determined  
Spec Gravity: 1.10 g/ml  
Vapor Pressure:  $1.5 \times 10^{-9}$  mm/Hg  
Vapor Density: Not available  
Solubility: 0.004 mg/l  
Volatiles: Not available  
Evaporation: Not available  
Melting Point: Not applicable  
Appearance: Beige liquid with undetermined odor.

III. INGREDIENTS

Material	CAS Number	Percent	TLV	Hazard
Lambda-Cyhalothrin Technical	91465-08-6	22.80	N/E	Toxic; Skin & eye irritant.
Naphthalene		</= 3.00	10 ppm	See note.
Titanium Dioxide			10 mg/m3	See note.
Petroleum Solvent			N/E	See note.

NOTE: Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.

IV. FIRE AND EXPLOSION HAZARD

Flash Point: Does not flash.  
Autoignition Temp: Not available.  
Flammable Limit: Not applicable.  
Extinguishing Media: Use dry chemical, foam or carbon dioxide extinguishing media.

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Special Fire Fight Proc: Wear full protective clothing and self-contained breathing apparatus. Evacuate non-essential personnel from area to prevent exposure to fire, smoke, fumes or combustion byproducts. Water runoff can cause environmental damage; dike/collect water runoff.

Fire and Expl Hazard: During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

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V. HEALTH HAZARD

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Carcinogen Information: IARC 2B (naphthalene)

ACUTE EFFECTS OF OVER EXPOSURE

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Swallowing: Moderately toxic by ingestion. Acute Oral LD50 (rat) = 180 mg/kg.

Skin Absorption: Slightly toxic by skin absorption. Acute Dermal LD50 (rat) > 2,000 mg/kg.

Inhalation: Practically non-toxic by inhalation. Acute Inhalation LC50 (LC50 animal not available) = 3.12 mg/L/4 hour.

Skin contact: Mildly irritating with skin contact. A mild skin sensitizer in animal tests. Contact with exposed skin may result in temporary itching, tingling, burning or numbness. Symptoms normally disappear within 24 hours.

Eye Contact: Mildly irritating with eye contact.

Chronic Effects: Lambda-Cyhalothrin Technical caused reversible paresthesia (abnormal skin sensation). Also caused reversible clinical signs of neurotoxicity in mammals.

Other Hazard: Lambda-Cyhalothrin Technical target organs are the liver and nervous system. Target organs for the inert ingredients are eyes, liver, kidney, respiratory tract, blood, CNS, stomach, thyroid, urinary bladder, skin and lungs.

EMERGENCY AND FIRST AID PROCEDURES

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Swallowing: Contact the manufacturer (Syngenta at 800-888-8372), a poison control center or doctor immediately for treatment advice. Do not give any liquid to the person. Do not induce vomiting unless instructed to do so by the poison control center or doctor.

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- Skin: If on skin or clothing, remove contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call the manufacturer (Syngenta at 800-888-8372), a poison control center or doctor for treatment advice.
- Inhalation: Move person to fresh air. If not breathing, call 911 then give artificial respiration, preferably mouth to mouth. Call the manufacturer (Syngenta at 800-888-8372), a poison control center or doctor for further treatment advice.
- Eyes: Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing. Call the manufacturer (Syngenta at 800-888-8372), a poison control center or doctor for treatment advice.
- Notes to Physician: There is no specific antidote if this product is ingested. Treat symptomatically. Persons suffering a temporary allergic reaction may respond to treatment with antihistamines or steroid creams and/or systemic steroids. Skin contact paresthesia effects are transient, lasting up to 24 hours; treat symptomatically. Contains petroleum distillate - vomiting may cause aspiration pneumonia.

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VI. REACTIVITY

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- Stability: Stable
- Conditions to Avoid: None known.
- Polymerization: Will Not Occur
- Conditions to Avoid: None known.
- Incompatibility material: None known.
- Hazardous Combustion: Can decompose at high temperatures forming toxic gases.

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VII. SPILL OR LEAK PROCEDURES

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- Spill or Leak Proc: Control the spill at its source. Contain spill to prevent from spreading or contaminating soil or from entering sewage or drainage systems or any body of water. Clean up spills immediately, using appropriate PPE as listed in Section VIII. Cover entire spill with absorbent material and place in compatible disposal container. Scrub area with hard water detergent

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e.g. - Tide). Use absorbent to collect wash liquid and place in container with other collected product. Seal and dispose.  
Waste Disposal Method: This material must be disposed of according to Federal, State or Local procedures under the Resource Conservation and Recovery Act.  
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VIII. SPECIAL PROTECTION INFORMATION

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Respiration: None normally required. In case of spills, use NIOSH-approved respirator with R, P or HE filter.  
Ventilation: Use effective engineering controls to comply with occupational exposure limits.  
Gloves: Chemical resistant (nitrile or butyl)  
Eyes: Chemical splash goggles  
Other: Coveralls, socks and chemical-resistant footwear.  
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IX. SPECIAL PRECAUTIONS

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Special precaution: Stringent housekeeping measures are necessary to prevent translocation of the product from contaminated work surfaces to uncontaminated surfaces. Keep out of reach of children. Do not store with food, feed or other material to be used or consumed by humans or animals. Do not contaminate water supplies, lakes, streams, ponds or soils with this material.  
Other precaution: Store in a well-ventilated, secure area. Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure. Do not reuse containers. Dispose of product containers, waste containers and residues in accordance with local, state and federal health and environmental regulations.  
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X. SHIPPING INFORMATION

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Shipping name: Pyrethroid Pesticide, Liquid, Toxic (contains Lambda-Cyhalothrin), 6.1, UN3352, PG III "ERG # 151"  
Hazard Class: Poison (6.1)  
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