



Safety Data Sheet

Report Date 27-Apr-16

Page 1 of 5

1. Identification

Product Name : LAMBDA T-2
Synonyms : None
Product Use : Lambda-cyhalothrin, Pyrethroid Insecticide
Manufacturer/Supplier : Helena Chemical Company
Address : 225 Schilling Blvd. Collierville, TN 38017
General Information : 901-761-0050
Transportation Emergency Number : CHEMTREC:800-424-9300

2. Hazard Identification



Signal Word : Danger
Skin Irritation : Not classified as hazardous under 29 CFR 1910.1200 (2012)
Eye Irritation : Not classified as hazardous under 29 CFR 1910.1200 (2012)
Acute Toxicity Oral : 310 mg/kg (male rat)
Acute Toxicity Dermal : >2,000 mg/kg (rat)
Hazard Categories : Oral/Inhalation Toxicity-4/4; Skin Sensitization-1B; Aspiration-1; Carcinogen-2
Hazard Statement : Harmful if swallowed
Harmful if inhaled
May cause an allergic skin reaction
May be fatal if swallowed and enters airways
Suspected of causing cancer

3. Composition / Information on Ingredients

Component	CAS Number	Weight %
Lambda-cyhalothrin	91465-08-6	22.80
Other Ingredients	Proprietary	<77.2
Titanium Dioxide	13463-67-7	Trade Secret
Petroleum Solvent	68477-31-6	Trade Secret

4. First Aid Measures



Safety Data Sheet

Report Date 27-Apr-16

Page 2 of 5

- Eye** : Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for further treatment advice.
- Skin** : Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.
- Inhalation** : Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.
- Ingestion** : Call a poison control center or doctor immediately for treatment advice. Rinse mouth with water. Do not induce vomiting. Do not give anything by mouth if unconscious.
- Indication of Immediate Medical Attention and Special Treatment Needed** : Treat symptomatically if ingested. Skin contact paresthesia effects are transient (</=24 hours). Treat temporary allergic reaction with antihistamines or steroid creams. Contains petroleum distillate-vomiting may cause aspiration pneumonia.

5. Fire Fighting Measures

- Extinguishing Media** : Use dry chemical, foam or carbon dioxide extinguishing media. If water is used to fight fire, dike and collect runoff.
- Specific Hazards Arising from the Chemical** : During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.
- Special Fire Fight Proc** : Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent exposure to fire, smoke, fumes or products of combustion.

6. Accidental Release Measures

- Personal Precautions** : Keep unprotected and unnecessary personnel out of spill area.
- Protective Equipment** : Splashproof goggles or face shield, chemical-resistant gloves, coveralls, socks and chemical-resistant footwear. Use NIOSH-approved respirator with organic vapor cartridge with an R, P or HE filter. Use a self-contained breathing apparatus in cases of emergency spills, when exposure levels are unknown, or under any circumstances when air-purifying respirators are inadequate. Eyewash and emergency shower should be available in work area.
- Emergency Procedures** : Control the spill at its source. Contain to prevent spreading or contaminating soil or entering sewage and drainage systems or any body of water. Clean up spills immediately.
- Methods and Materials for Containment and Cleanup** : Cover entire spill with absorbent and place in compatible disposal container. Scrub area with hard water detergent (e.g. - Tide). Use additional absorbent to pick up wash water and place in container with other collected product. Seal and dispose of cleanup material in accordance with applicable regulations.

7. Handling and Storage

- Precautions for Safe Handling** : Prevent eating, drinking, tobacco use and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.



Safety Data Sheet

Report Date 27-Apr-16

Page 3 of 5

Conditions for Safe Storage : Store locked up. Store the material in a well-ventilated, secure area out of reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area.

8. Exposure Controls / Personal Protection

TLV/PEL : Lambda-cyhalothrin: no TLV or PEL established. Titanium Dioxide: PEL=15 mg/m³, TLV=10 mg/m³.

Appropriate Engineering Controls : Use effective engineering controls to comply with occupational exposure limits (if applicable).

Personal Protective Equipment : Splashproof goggles/face shield, chemical-resistant gloves/coveralls/socks/chemical-resistant footwear. Use NIOSH-approved respirator with organic vapor cartridge and R, P or HE filter. Eyewash/emergency shower should be available.

9. Physical and Chemical Properties

Odor/Appearance : White liquid with aromatic odor.

Flash Point, °F : >212 Degrees F.

Boiling Point, °F : Not available

Melting Point(Freezing point), °C : Not applicable

Vapor Pressure, mm Hg @ 20 °C : 1.5 x 10⁽⁻⁹⁾ mmHg @68 Deg. F.

Vapor Density : Not available

Solubility in Water : 0.004 mg/L(lambda-cyhalothrin)

Molecular Formula : Not applicable, formulated mixture.

Density, g/mL @ 25 °C : 1.096

Evaporation Rate(Butyl Acetate = 1) : Not available

Octanol/Water Partition Coefficient : Not available

pH : 5.5 (1% in deionized H₂O @ 77 Deg. F.)

Flammable Limits (approximate volume % in air) : Not available

Auto-ignition Temperature : 1193 Degrees F.

Decomposition temperature : Not available

10. Stability and Reactivity

Reactivity : Not reactive

Chemical Stability : Stable

Hazardous Decomposition Products : None known

Hazardous Polymerization : Will not occur

Conditions to Avoid : None known



Safety Data Sheet

Report Date 27-Apr-16

Page 4 of 5

Incompatible Materials : None known

11. Toxicological Information

- Acute Toxicity (Oral LD50)** : 310 mg/kg (female rat). Harmful if swallowed.
- Acute Toxicity (Dermal LD50)** : >2,000 mg/kg (rabbit). Not classified as hazardous under 29 CFR 1910.1200 (2012).
- Acute Toxicity Inhalation LC50** : >3.12 mg/L/4 hours (female rat). Harmful if inhaled.
- Likely Routes of Exposure** : Dermal, inhalation
- Skin Irritation** : Not classified as hazardous under 29 CFR 1910.1200 (2012).
- Eye Irritation** : Not classified as hazardous under 29 CFR 1910.1200 (2012).
- Skin Sensitization** : Skin sensitizer (derived from components). May cause an allergic skin reaction.
- Carcinogenic** : Titanium Dioxide - IARC Group 2B (possibly carcinogenic to humans).
- Chronic Effects** : Reversible paresthesia (abnormal skin sensation). Reversible clinical signs of neurotoxicity in mammals.
- Other Hazards** : Aspiration Hazard: May be fatal if swallowed and enters airways. Not a developmental or reproductive toxicant.

12. Ecological Information

- Ecotoxicity** : Lambda-cyhalothrin: Fish (rainbow trout) 96-hour LC50 0.19 ppb; Bird (mallard duck) LD50 oral>3,950 mg/kg; Invertebrate (water flea) 48-hour EC50 0.04 ppb.
- Persistence and Degradability** : Lambda-cyhalothrin: Not persistent in soil or water.
- Bioaccumulative Potential** : No information found
- Mobility in Soil** : Lambda-cyhalothrin: Immobile in soil. Sinks in water (after 24 hours).
- Other Adverse Effects** : No information found

13. Disposal Considerations

- Waste Disposal Method** : This material must be disposed of according to Federal, State or Local procedures under the Resource Conservation and Recovery Act.

14. Transport Information

- UN Proper Shipping Name** : Not regulated by DOT. If shipped by air (IATA) or water (IMDG), ship as noted.
- Transport Hazard Class** : None
- UN Identification Number** : None
- Packaging Group** : None
- Environmental Hazards** : Marine Pollutant under international regulations. Not listed as a Marine Pollutant per 49 CFR 172.101, Appendix B.
- Transport in Bulk** : No information found



Safety Data Sheet

Report Date 27-Apr-16

Page 5 of 5

Special Precautions for Transportation : If shipped by air (IATA) or water (IMDG), ship as: UN3082, Environmentally Hazardous Substance, Liquid, n.o.s., (Lambda-cyhalothrin), 9, PG III, Marine Pollutant
Freight Classification : Pesticides, NOI, Insecticides, Other than Poison (NMFC Item 155050, Sub 11, Class 70)

15. Regulatory Information

National Fire Protection Association Rating :

Health: 2 Fire: 1 Reactivity: 0
Rating Level: (4-Extreme, 3-High, 2-Moderate, 1-Slight, 0-Minimum)

S.A.R.A Title III Hazard Classification (Yes/No) :

Immediate(Acute) Health: Y
Delayed (Chronic) Health: Y
Sudden Release of N
Pressure:
Fire: N
Reactive: N

FIFRA Information : This Chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labelling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

EPA Registration Number : 100-1295-5905

FIFRA Signal Word : Warning

FIFRA Label Statement : Keep out of reach of children.

FIFRA Label Statement : May be fatal if swallowed. Causes moderate eye irritation.

FIFRA Label Statement : Harmful if absorbed through skin. Avoid contact with eyes, skin or clothing.

FIFRA Label Statement : Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals.

FIFRA Label Statement : Wash thoroughly with soap and water after handling and before eating,

FIFRA Label Statement : drinking, chewing gum or tobacco.

FIFRA Label Statement : Remove and wash contaminated clothing before reuse.

16. Other Information

Data of Preparation/Revision : 27-April-2016