



MATERIAL SAFETY DATA SHEET

LAMDOC[®] 50EC

ASTRA INDUSTRIAL COMPLEX CO., LTD. (ASTRACHEM)
P.O. Box 30447, AL-KHOBAR 31952
KINGDOM OF SAUDI ARABIA

1. PRODUCT IDENTIFICATION

Product Name: LAMDOC[®] 50EC

Chemical Class: Pyrethroid Insecticide

Use: Lamdoc 50EC is used for the control of a wide spectrum of insect pests, e.g. aphids, beetles, thrips, *Lepidoptera* larvae, *Coleoptera* larvae and adults, etc., in cereals, ornamentals, potatoes, vegetables and other crops.

Producer: Astra Industrial Complex Co., Ltd.
P.O. Box 30447, Al-Khobar 31952
Kingdom of Saudi Arabia
Emergency Tel # (+966) 3 8121 406

2. COMPOSITION / INFORMATION ON INGREDIENTS

Substance	Proportions (% w/w)	Chemical structure
<p>Lambda-Cyhalothrin 90 Technical CAS No. 91465-08-6 Chemical Name: A reaction product comprising equal quantities of (S)-α-cyano-3-phenoxybenzyl (Z)-(1R,3R)-3-(2-chloro-3,3,3-trifluoroprop-1-enyl)-2,2-dimethylcyclopropanecarboxylate and (R)-α-cyano-3-phenoxybenzyl (Z)-(1S,3S)-3-(2-chloro-3,3,3-trifluoroprop-1-enyl)-2,2-dimethylcyclopropanecarboxylate (IUPAC).</p>	<p>6.16 (50 ± 3 g/L)</p>	<p>(S) (Z)-(1R)-cis -</p> <p>(R) (Z)-(1S)-cis -</p>
Blend of ionic and non ionic emulsifiers	6.66	
Organic solvents	87.18	



3. HAZARD IDENTIFICATION

Physical hazards:

None

Acute Hazard Symptoms:

Inhalation: Burning sensation. Convulsions. Cough. Laboured breathing. Shortness of breath. Score throat.
Eye: Redness. Pain
Skin: Redness. Pain
Ingestion: Abdominal pain. Cough

Prevention:

Exposure: Prevent dispersion of dust! Strict Hygiene!
Inhalation: local exhaust, or breathing protection.
Eye: Safety spectacles.
Skin: Protective clothing.
Ingestion: Do not eat, drink, or smoke during work. Wash hands before eating.

4. FIRST AID MEASURES

First Aid:

Exposure: In all cases consult a doctor!

Ingestion:

Do not induce vomiting. Provided the patient is conscious, wash out mouth with water. Vomiting should only be induced under the direction of a physician. If spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in of vomitus. Immediately transport victim to an emergency facility.

Eye:

First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.

Skin:

Remove contaminated clothes. Rinse and then wash skin with water and soap.



Inhalation:

Remove victim to fresh air, rest. If not breathing, give artificial respiration preferably mouth-to-mouth. If breathing is labored, give oxygen. Obtain immediate medical attention.

Advice to doctor:

This product contains materials that may cause pneumonitis if aspirated. If ingestion has occurred less than 2 hours earlier, carry out careful gastric lavage; use endotracheal cuff if available, to prevent aspiration. Observe patient for respiratory difficulty from aspiration pneumonitis. Give artificial resuscitation and appropriate chemotherapy if respiration is depressed. Symptomatic treatment and supportive therapy as indicated.

5. FIRE FIGHTING MEASURES

Extinguishing Media:

For small fires, use alcohol-resistant foam, dry sand, carbon dioxide or dry powder extinguishant. For large fires, use foam or water-fog, avoid use of water jet. Contain run-off water with for example, temporary earth barriers.

Fire and Explosion Hazards:

Flash point: 43.0°C
Combustible Liquid. Keep fire exposed containers cool by spraying with water.

Fire Fighting Instructions:

Evacuate area and fight fire upwind from a safe distance to avoid hazardous vapors and decomposition products. Fire exposed containers can build up pressure and should be kept cool with water spray if possible. Explosive vapor could form from ruptured containers. Dike and collect water used to fight fire to prevent environment damage due to run off. Foam or dry chemical fire extinguishing systems are preferred to prevent environmental damage from excessive water run off.

Self-contained breathing apparatus with full face - piece.



6. ACCIDENTAL RELEASE MEASURES

Contain spill and absorb with sand or proprietary absorbent (vermiculite). Prevent from entering drains, waterway or sewers. Collect in sealed open top containers for disposal. Generously cover the contaminated areas with common, household detergent brush in a small amount of water, work the detergent into the remaining spilled material forming slurry. Collect slurry in sealed open top container for disposal. This material is water pollutant and should be prevented from drainage systems and bodies of water.

Disposal:

Triple rinse containers, add rinsate to the spray tank, then offer container for recycling/reconditioning, or puncture top, sides and bottom and dispose of in landfill in accordance with local regulations. On-site disposal of concentrate is not acceptable.

Waste disposal should be carried out by industrial incineration or burial at a site approved by local authorities.

7. HANDLING AND STORAGE

Keep out of reach of Children:

Use only in a well-ventilated area. Do not reuse empty containers. Keep the container closed when not in use. Keep away from food, feed and drinking water. Keep in a well-ventilated, dry place away from heat and other sources of ignition. Keep from freezing.

8. EXPOSURE CONTROLS / PERSONNEL PROTECTION

Engineering Controls:

Natural ventilation only required when handling the concentrate. A local exhaust should be used in confined areas to keep the level of solvent within acceptable limits.

Personnel Protection:

Eyes Protection: Safety glasses or goggles.

Clothing: Long sleeved shirt and long pants, shoes and socks.



Gloves: Chemical resistant gloves.

Respirator: All pesticide handlers must wear a respiratory protection device when working.

User Safety Recommendations:

Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Assay	" <i>Lambda-Cyhalothrin</i> " 50 ± 3 g/L
Appearance	Clear, yellow liquid free of visible impurities.
Odour:	Slightly aromatic.
Boiling Point:	Not available.
Melting Point:	Not applicable
Density	0.900 ± 0.006 Kg/L
Acidity as H₂SO₄	<0.5 g/ Kg
Flash point	>40°C
Water content	<2.0 g / Kg
Solubility in water	Form emulsion.

10. STABILITY AND REACTIVITY

Stability: Stable under room temperature.

Incompatibility: Strong oxidizing agents. Acids and alkaline materials.

Hazardous Polymerization: Will not occur

Condition to avoid Keep away from heat. Keep away from sources of ignition, No smoking.

Hazardous Decomposition Products:

Thermal decomposition products are toxic and may include hydrocarbons ammonia, organic and acid halides, oxide of carbon, nitrogen and sulfur.



11. TOXICOLOGICAL INFORMATION

Formulation:

LD₅₀ oral for rat the product > 1,700 mg/Kg

Technical:

LD₅₀ oral for rat for technical grade material used in the product:

Lambda-Cyhalothrin: 79 mg/Kg.

12. ECOLOGICAL INFORMATION

Keep out of water supplies ground water or open water. This product is very toxic to aquatic organisms.

Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

13. DISPOSAL CONSIDERATION

Disposal Methods:

Do not contaminate ponds, waterways or ditches with chemical or used containers. Dispose of in facility permitted for hazardous waste.

Container Disposal:

Empty container retains product residue. Triple rinse empty containers, return rinse water to dilution mixture, and dispose of dilution mixture as a hazardous waste if it cannot be disposed of by use according to label instructions. Do not reuse container. Offer if for recycling or reconditioning, or puncture and dispose of in properly permitted landfill.



14. TRANSPORT INFORMATION

Proper Shipping Name: Insecticide, Liquid; Toxic, Flammable

15. REGULATORY INFORMATION.

Insecticide for Agricultural Use

16. OTHER INFORMATION

Buyer assumes all responsibility for safety and use not in accordance with the product label instructions.