

# Safety Data Sheet

**LambdaStar 9.7% CS**

**SDS: 5/6/15**

## Section 1 – Chemical Product and Company Identification

**Product Name:** LambdaStar 9.7% CS

**CAS #** 91465-08-6

**EPA Reg. #:** 71532-23-91026

**Product Use:** Insecticide

**Company Identification:** LG Life Science America Inc.  
910 Sylvan Avenue  
Englewood Cliffs, NJ 07632

**Emergency call:** 201-816-2310

## Section 2 – Hazards identification

**Classification of substance:**



Fatal if swallowed

Toxic to aquatic life with long lasting effects

Harmful if inhaled

Harmful in contact with skin

Cause mild skin irritation

**GHS labeling elements:**

The substance is classified and labeled according to the Globally Harmonized System (GHS):

**Hazard pictograms:**



GHS06

GHS09

**Signal Word:** Danger

**Hazard-determined components of labeling:** Lambda-cyhalothrin

**Hazard statements:**

Fatal if swallowed

Harmful if inhaled

Very Toxic to aquatic life with long lasting effects

Cause mild skin irritation

Harmful in contact with skin

**Precautionary Statements:**

**Prevention:** Avoid breathing dust/fume/gas/mist/vapour/spray.

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Avoid release to the environment

**Response: If Swallowed:** Rinse mouth and Do not induce vomiting. Immediately call a Poison Center/doctor.

**If Inhaled:** Remove person to fresh air and keep at rest in a position comfortable for breathing. Wash contaminated clothing before reuse. Call a poison center or doctor/physician if you feel unwell.

Collect spillage

**If on Skin:** Remove all contaminated clothing. Rinse with water. If skin irritation occurs seek medical advice/attention.

**If Inhaled:** Remove person to fresh air and keep at rest in a position comfortable for breathing. Wash contaminated clothing before reuse.

**Other effects of overexposure:** High levels of the active ingredient lambda-cyhalothrin may induce neurotoxic effects such as staggering gait, muscle tremors and convulsions.

**NFPA Grade (0-4 level):** Health:2, Flammability:1, Reactivity: 0

## Section 3 – Composition/information of ingredient

| Chemical Name      | Trade names and Synonyms  | Percent | CAS No.    |
|--------------------|---|---------|------------|
| Lambda-cyhalothrin | Lambda-cyhalothrin:[1a(S),3a(Z)]-(±)cyano(3-phenoxyphenyl)methyl-3-(2-chloro-3,3,3-trifluoro-1-proenyl)-2,2-dimethylcyclopropanecarboxylate | 9.7%    | 91465-08-6 |
| Other Ingredients  | Non-Toxic and non-hazardous*  | 91.6%   |            |

\*Proprietary components

## Section 4 – First Aid Measures

|            |   |
|------------|---|
| Symptoms   | 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. High levels of the active ingredient lambda-cyhalothrin may induce neurotoxic effects such as staggering gait, muscle tremors and convulsions. |
| Swallowed: | Call a poison control center or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by the poison control center or doctor. Rinse mouth with water immediately. Contain xylene range aromatic solvent- vomiting may cause aspiration pneumonia.  |
| Eyes:      | May cause irritation do not rub eyes. Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.   |

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|   |   |
|---|---|
| Skin:   | Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes.                                 |
| Inhalation:   | May cause irritation. Remove to fresh air. If person stops breathing or irregular, give artificial respiration and supply oxygen. |
| <p><b>Note to Physicians</b></p> <p>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. Notify medical personnel of contaminated situations and have them take appropriate protective measure.</p> <p>IF on skin, after drying apply vitamin E cream or oil if available. If not available, apply vegetable oil liberally over painful areas. The oil or cream may be used repeatedly until relief is achieved.</p> |   |

## Section 5 – Fire Fighting Measure

**Extinguishing media:** Use dry powder or sand, carbon dioxide, or appropriate surrounding fire and materials.

Avoid use of water jets for extinguishing

**Fire and Explosive Hazards:** Combustible

**Special fire fighting procedures:** Fireman should wear positive pressed freely breathing devices, complete fire protection clothes and shoes. Do not access if tank is on fire. Use water to cool exposed containers to extinguish fire. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. Avoid inhalation of materials or combustion by-product. Vapor or gas is burned at distant ignition sources can be spread quickly.

**Reference to other sections:**

See Section 10 for decomposition products.

## Section 6 – Accidental Release Measures

**Personal precautions, protective equipment and emergency procedures:** Wear approved respiratory protection, chemically compatible gloves and protective clothing. Keep unprotected person's way. Allow work against the wind and remove all people upwind. Do not direct water at spill or source leak.

**Environmental precautions:** Prevent runoff and contact with sources of water including but not limited to drains, sewers, lakes and ponds. In case of large spill, inform the relevant authorities.

**Methods and material for containment and cleaning up:**

**In case small leak or spill:** contain material using sand or other non-combustible, let absorb, and dispose as waste. Don't contaminate any body of water. Sweep up material, place in a bottle, and hold for waste disposal. Do not use alkaline absorbent.

**In case large leak or spill:** Stay upwind and keep out of low areas. Prevent from contaminating waterways. Dispose of waste in accordance with local regulation. Eliminate potential source of ignition. Wear appropriate respirator and other protective clothing. Shut off source of leak only if safe to do so. Dike and contain. Remove with vacuum trucks or pump to storage/salvage vessels. Soak up residue with an absorbent such as clay, sand, or other suitable material; place in non-leaking containers and seal tightly for proper disposal. Flush are

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with water to remove trace residue; dispose of flush solution as above. Inform the relevant authorities when emission at least standard amount.

### Reference to other sections:

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

## Section 7 – Handling and Storage

### Handling

**Precautions for safe handling:** Avoid direct physical contact. Do not inhale the steam prolonged or repeatedly. Use product only in well-ventilated place. Users should wash hands before eating and drinking. Do not contaminate water, food, or feed by storage. Since emptied containers retain product residue (vapor, liquid, solid) follow all MSDS and label warnings even after container is empty. Keep protective respiratory device available.

### Conditions for Safe Storage, including any incompatibilities

**Storage:** Do not contaminate water, food, or feed by storage. Store in original container only. Avoid direct sunlight. Do not apply physical shock to container. Store in a secure, dry and temperate area. Keep container closed when not in use. Avoid contact with water. Shake well before use.

**Requirements to be met by storerooms and receptacles:** Store out of sun in cool place. Do not store near food or feed. Do not use or store around the home. Protect from freezing.

### Reference to other sections:

See Section 10 for incompatibilities

See Section 6 for accidental release measure

## Section 8 – Contact Controls and Personal Protection

**Max allowed concentration:** No Data

**Way of measurement:** No Data

**Engineering Control:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep risk of inhalation low. Take safety shower after handling equipment. An adequate supply of clean potable water should be available to allow thorough flushing of the skin and eyes in even of contact with this material.

### Personal Protection

**Respirators:** Not normally needed for this product when diluted in water for end-use application. When needed, use MSHA/NIOSH approved respirator for pesticide.

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles such as splash resistant safety goggles with a secondary protection faceshield. Provide an emergency eye wash station and quick drench shower in the immediate work area.

**Body:** Wear appropriate chemical resistant overalls and rubber boots and rubber gloves. Avoid any skin exposure. Wash separately from other laundry.

**Hands:** Wear appropriate gloves, such as barrier laminate or Viton ≥ 14mils.

**General protective and hygienic measures:** Discard clothing other absorbent materials that have been

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drenched or heavily contaminated with this product's concentrate. Do not reuse them. Wash contaminated clothing before reuse. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. No smoking, eating or drinking during handling. Change to clean clothes after washing.

**Other conditions:** When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

### Section 9 – Physical and Chemical Properties

#### Information on basic physical and chemical properties

##### General Information:

**Appearance and Physical State:** Fluid (Capsule Suspension based on water), slightly aromatic odor

**Color:** white

**pH Value:** 4.17

**Viscosity:** 1,500 centipoises at 20rpm using a # 2 spindle @ 24 °C

**Vapor Pressure (25 °C):** 1.02 g/ml

**Melting point:** Not available

**Boiling Point:** Not applicable

**Specific Gravity:** 8.32 lbs/gal

**Comparative concentration (water: 1):** Not available (not required for end use)

**Quantity of heat in burning (KJ/mol):** Not available (not required for end use)

**Density (g/cm<sup>3</sup>):** 1.028 at 24°C

**Critical pressure (Mpa):** Not available

**Critical temperature:** Not available

**Flash point (C):** > 250

**Burning temperature (C):** Not available

**Explosion:** Not available

**Solubility:** Suspendable in water

### Section 10 – Stability and Reactivity

**Chemical Stability:** This material is stable at the normal storage conditions.

**Incompatible to Avoid:** Strong acidic, Oxidizing agents, Calcium Hypochlorite, and alkali materials should be avoided.

**Conditions to Avoid:** Avoid accumulation of electrostatic charges, heating, flames, and hot surface.

**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:** No record

#### Reference to other sections:

See Section 5 for static discharge potential

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## Section 11 – Toxicological Information

### Acute Toxicity:

#### LD/LC50 values that are relevant for classification:

**Oral:** LD<sub>50</sub> : > 300 mg/kg

**Inhalation:** LC<sub>50</sub> > 2.2 mg/L

**Dermal:** LD<sub>50</sub> > 2,000 mg/kg

**Eyes:** Slight Irritant

#### Primary irritant effect:

**On eyes:** Minimally irritating to the eye

**On the skin:** Slight irritating to skin

**If swallowed:** No hazards anticipated from swallowing small amounts incidental to normal handling operation.

**Respiratory sensitization:** Single exposure to dust is not likely to be hazardous. Vapors are unlikely due to physical properties.

**Skin Sensitization:** Product is not considered a contact sensitizer.

**Germ Cell Mutagenicity:** The chromosome aberration test was negative.

**Carcinogenicity:** This product has negative Ames test results.

**Reproductive Toxicity:** Not available

**STOT-Single Exposure:** Not available

**STOT-Repeated Exposure:** Not available

**Aspiration Hazard:** Not available

## Section 12 – Ecological Data

### Eco-toxicity:

**Fish acute toxicity:** LC<sub>50</sub>: 0.24 ug/l (96hr) (Rainbow trout)

**Crustaceans acute toxicity:** LC<sub>50</sub>: .36 ug/l (72hr) (Daphnia magna)

**Algae acute toxicity:** LC<sub>50</sub>: >1000mg/l (96hr)

### Honey Bees:

**Test:** 48-h LD50

**Oral:** 909ng/bee

**Contact:** 38 ng/bee

**Toxicity to Beneficial Insects:** Toxic to some non-target arthropods.

**Bioaccumulative potential:** Lambda-cyhalothrin: BCF 1063 (Has the potential bioaccumulation)

**Biodegradation potential:** Lambda-cyhalothrin: It does not decompose.

**Mobility in Soil:** Lambda-cyhalothrin: Koc 151200 (can be adsorbed in the soil).

**Other:** This pesticide is extremely toxic to fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not apply when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when cleaning equipment or when disposing of equipment rinsate. This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. DO not apply this product or allow it to drift to blooming crops if bees are visiting the treatment area.

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## Section 13 – Disposal Considerations

**Waste Disposal:** Do not contaminate water, food, or feed by disposal. Dispose of waste in accordance with all applicable Federal, State, and local laws. Improper disposal of excess pesticide, spray mixture, or rinsate is violation of Federal Law. If this waste cannot be disposed of by use according to label instructions contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**Container Disposal:** Triple rinse (or equivalent), then offer for recycling or reconditioning if container reuse is permitted. If container reuse is prohibited, puncture metal containers and dispose of in a sanitary landfill, or by other approved State and local authorities, if burned, stay out of smoke.

## Section 14 – Transport Information

### DOT CLASSIFICATION:

**Non-bulk:** Not regulated and requires no markings, label, or placards.

(Note: Combination packages with inner packages less than 5 liters may be re-classified as Consumer Commodities (ORM-D). These packages cannot be shipped by air freight).

**Bulk:** UN3082, Environmentally hazardous substance, liquid, n.o.s.  
(lambdacyhalothrin), 9,PGIII, marine pollutant.

### INTERNATIONAL TRANSPORTATION:

**IMO (vessel):** UN3082, Environmentally hazardous substance, liquid, n.o.s.  
(lambdacyhalothrin), 9,PGIII, marine pollutant.

**IATA (air):** UN3082, Environmentally hazardous substance, liquid, n.o.s.  
(lambdacyhalothrin), 9,PGIII, marine pollutant.

**Storage:** Store in a cool place, keeping away from heat and light.

## Section 15 – Regulatory Data

### U.S. Federal Regulations

| Hazard Data                                       | FIFRA Classification/Typical Hazard Labeling, as outlined in EPA Label Review Manual | OSHA HCS Requirement for Section 2 of SDS                  |
|---|--|--|
| Signal Word                                       | <b>WARNING</b>   | <b>DANGER</b>  |
| Acute Toxicity, oral LD <sub>50</sub> > 300 mg/kg | (Category II)<br>May be fatal if swallowed   | (Category 2)<br>Skull and Crossbones<br>Fatal if swallowed |
| Acute Toxicity, dermal                            | (Category III)   | (Category 4)   |

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| LD <sub>50</sub> >2,000 mg/kg                            | Harmful if absorbed through skin                                    | Harmful in contact with skin   |
| Acute Toxicity, inhalation<br>LD <sub>50</sub> >2.2mg/kg | (Category IV)<br>Harmful if inhaled                                 | (Category 4)<br>Harmful if inhaled   |
| Skin Irritation  | (Category III)<br>Avoid contact with skin or clothing               | (Category 3)<br>Causes mild skin irritation  |
| Eye Irritation   | (Category III)<br>Cause moderate eye irritation                     | Not classified   |
| Sensitization  | Slightly irritating   | Not classified   |
| Germ Cell Mutagenicity                                   | Not labeled   | Not classified   |
| Carcinogenicity  | Not labeled   | Not Classified   |
| Reproductive/developmental Toxicity                      | Not labeled   | Not classified   |
| Specific target organ toxicity, single exposure          | Not labeled   | Not classified   |
| Specific target organ toxicity, repeated exposure        | Not labeled   | Not classified   |
| Aspiration   | Not labeled   | Not classified   |
| Environmental (aquatic) toxicity                         | This product is extremely toxic to fish and other aquatic organisms | Not within OSHA's jurisdiction, therefore not required on SDS. Optional GHS aquatic toxicity symbol and hazard statement: Very Toxic to aquatic life with long last. |

**FIFRA Classification:** This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also included other important information, including direction for use. Following is the hazard information as required on the pesticide label:

### WARNING

May be fatal if swallowed

Harmful if inhaled or absorbed through skin.

Causes moderate eye irritation

Avoid contact with eyes, skin, or clothing.

Avoid breathing spray mist.

Wear protective eyewear.

Wear long-sleeved shirt and long pants, socks, shoes, and gloves.

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Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.

Remove and wash contaminated clothing before reuse.

This product is extremely toxic to fish and other aquatic organisms

**TSCA (Toxic Substances Control Act) Regulations, 40CFR710:** This product is a pesticide and is exempt from TSCA regulation.

**CERLA and SARA Regulations (40CFR 355, 370, and 372):** This product does not contain any chemicals subject to the reporting requirements of SARA Section 313.

## GHS labeling elements:

The substance is classified and labeled according to the Globally Harmonized System (GHS):

### Hazard pictograms:



GHS06

GHS09

**Signal Word:** Danger

**Hazard-determined components of labeling:** Lambda-cyhalothrin

### Hazard statements:

Fatal if swallowed

Harmful if inhaled

Very Toxic to aquatic life with long lasting effects

Cause mild skin irritation

Harmful in contact with skin

### Precautionary Statements:

**Prevention:** Avoid breathing dust/fume/gas/mist/vapour/spray.

Avoid release to the environment

**Response: If Swallowed:** Rinse mouth and Do not induce vomiting. Immediately call a Poison Center/doctor.

**If Inhaled:** Remove person to fresh air and keep at rest in a position comfortable for breathing. Wash contaminated clothing before reuse. Call a poison center or doctor/physician if you feel unwell.

Collect spillage

**If on Skin:** Remove all contaminated clothing. Rinse with water. If skin irritation occurs seek medical advice/attention.

**If Inhaled:** Remove person to fresh air and keep at rest in a position comfortable for breathing. Wash contaminated clothing before reuse.

**Other effects of overexposure:** High levels of the active ingredient lambda-cyhalothrin may induce neurotoxic effects such as staggering gait, muscle tremors and convulsions.

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## Section 16 – Additional information

**Reference:** The information contained herein is believed to be accurate. It is provided independently of any sale of the product for purpose of hazard communication. It is not intended to constitute performance information concerning the product. No express warranty, or implied warranty of merchantability or fitness for a particular purpose is made with respect to the product or the information contained herein. This Safety Data Sheet was compiled with data and information from the following source: KOSHA, NITE, ESIS, NLM, SIDS, IPCS

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