Section 1: Identification

Product identifier

Product Name · Lambda 9.7 CS
Synonyms · 100208956; 100208957; EPA Reg. No.: 89459-51
Product Description · Off-white liquid.

Relevant identified uses of the substance or mixture and uses advised against

Recommended use · Insecticide.
Restrictions on use · Keep out of reach of children. Avoid contact with eyes and skin.

Details of the supplier of the safety data sheet

Manufacturer · Central Garden & Pet Company
1501 E. Woodfield Road, Suite 200W
Schaumburg, IL 60173
United States
www.zoecon.com

Emergency telephone number

Manufacturer (Transportation) · 1-800-424-9300 - CHEMTREC
Manufacturer (Transportation) · 1-703-527-3887 - Chemtrec - Outside US collect calls accepted
Manufacturer · 1-800-248-7763

Section 2: Hazard Identification

United States (US)
According to: OSHA 29 CFR 1910.1200 HCS

Classification of the substance or mixture

OSHA HCS 2012 · Not classified; does not meet hazard criteria.

Label elements

OSHA HCS 2012
Hazard statements · No label element(s) required

Other hazards

OSHA HCS 2012 · This product is not considered hazardous under the U.S. OSHA 29 CFR 1910.1200 Hazard Communication Standard. This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds.
**Section 3 - Composition/Information on Ingredients**

**Substances**

- Material does not meet the criteria of a substance.

**Mixtures**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Identifiers</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lambda-cyhalothrin</td>
<td>CAS:91465-08-6</td>
<td>9.7%</td>
</tr>
<tr>
<td>Acetophenone</td>
<td>CAS:98-86-2</td>
<td>4%</td>
</tr>
<tr>
<td>Other ingredients</td>
<td>NDA</td>
<td>86.3%</td>
</tr>
</tbody>
</table>

**Section 4: First-Aid Measures**

**Description of first aid measures**

**Inhalation**

- IF INHALED: Move person to fresh air. If person is not breathing, call 911 or get medical help then give artificial respiration, preferably by mouth-to-mouth if possible. Call a poison control center or seek medical advice.

**Skin**

- IF ON SKIN: 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.

**Eye**

- IF IN EYES: Hold eye open and rinse 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.

**Ingestion**

- IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Do not give any liquid to the person. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

**Most important symptoms and effects, both acute and delayed**

- Refer to Section 11 - Toxicological Information.

**Indication of any immediate medical attention and special treatment needed**

**Notes to Physician**

- Treat symptomatically and supportively.

**Section 5: Fire-Fighting Measures**

**Extinguishing media**

**Suitable Extinguishing Media**

- Use water spray, alcohol resistant foam, carbon dioxide, or dry chemical.

**Unsuitable Extinguishing Media**

- Avoid heavy hose streams.

**Firefighting Procedures**

- Move containers from fire area if you can do it without risk.
Use extinguishing agent suitable for type of surrounding fire. Do not allow fire fighting water to escape into waterways or sewers.

**Special hazards arising from the substance or mixture**

**Unusual Fire and Explosion Hazards**
- No data available.

**Hazardous Combustion Products**
- Decomposes upon heating to produce toxic vapors/gases including oxides of carbon and nitrogen.

**Advice for firefighters**
- Wear positive pressure self-contained breathing apparatus (SCBA).

### Section 6 - Accidental Release Measures

**Personal precautions, protective equipment and emergency procedures**

**Personal Precautions**
- Use appropriate Personal Protective Equipment (PPE). Avoid contact with skin, eyes, and clothing. Ventilate the area.

**Emergency Procedures**
- No data available. Do not allow runoff into water, storm drains or drainage ditches.

**Environmental precautions**
- Contain and prevent from release into any waterway, sewer or drain.

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

**Containment/Clean-up Measures**
- Absorb spills with an inert material, clay granules or other inert absorbent material and put in container for disposal.

### Section 7 - Handling and Storage

**Precautions for safe handling**

**Handling**
- Avoid contact with skin or eyes. Avoid breathing fumes. Do not use in areas without adequate ventilation. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

**Conditions for safe storage, including any incompatibilities**

**Storage**

**Incompatible Materials or Ignition Sources**
- Separate pesticides during storage to prevent cross-contamination of other pesticides, fertilizers, food and feed.

**Other Information**
- See product label for additional information.

### Section 8 - Exposure Controls/Personal Protection

**Control parameters**

<table>
<thead>
<tr>
<th></th>
<th>Exposure Limits/Guidelines</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetophenone (98-86-2)</td>
<td>10 ppm TWA</td>
</tr>
</tbody>
</table>

**Preparation Date:** 11/May/2015  
**Revision Date:** 14/January/2016
Exposure controls

Engineering Measures/Controls
- Use adequate ventilation to remove vapors (fumes, dust etc)

Personal Protective Equipment

Pictograms

Respiratory
- If handling without sufficient ventilation, wear a NIOSH approved respirator with organic cartridge.

Eye/Face
- Wear chemical splash safety goggles.

Hands
- Wear chemical resistant gloves.

Skin/Body
- Long sleeve shirt, long pants, shoes, and socks should be worn.

General Industrial Hygiene Considerations
- Do not get in eyes or on skin or clothing. Handle in accordance with good industrial hygiene and safety practice.

Environmental Exposure Controls
- Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways.

Section 9 - Physical and Chemical Properties

Information on Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Material Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Form</td>
<td>Liquid</td>
</tr>
<tr>
<td>Appearance/Description</td>
<td>Off-white liquid.</td>
</tr>
<tr>
<td>Color</td>
<td>Off-white</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>4.17</td>
</tr>
<tr>
<td>Specific Gravity/Relative Density</td>
<td>1.01 g/ml</td>
</tr>
<tr>
<td>Density</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash Point</td>
<td>No data available</td>
</tr>
<tr>
<td>UEL</td>
<td>No data available</td>
</tr>
<tr>
<td>LEL</td>
<td>No data available</td>
</tr>
<tr>
<td>Autoignition</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>Miscible</td>
</tr>
<tr>
<td>Octanol/Water Partition coefficient</td>
<td>No data available</td>
</tr>
</tbody>
</table>

Section 10: Stability and Reactivity

Reactivity
- Non-reactive under normal handling and storage conditions.

Chemical stability
- Stable under normal temperatures and pressures.

**Possibility of hazardous reactions**
- Hazardous polymerization will not occur.

**Conditions to avoid**
- Do not allow product to freeze. Heat, sparks, open flame.

**Incompatible materials**
- No data available.

**Hazardous decomposition products**
- Carbon and nitrogen oxides.

---

**Section 11 - Toxicological Information**

**Information on toxicological effects**

<table>
<thead>
<tr>
<th>CAS</th>
<th>Acute Toxicity: Ingestion/Oral-Rat LD50 • &gt;5000 mg/kg; Inhalation-Rat LC50 • &gt;2.23 mg/L 4 Hour(s); Skin-Rat LD50 • &gt;5000 mg/kg; Irritation: Eye-Rabbit • Essentially non-irritating; Skin-Rabbit • Essentially non-irritating</th>
</tr>
</thead>
</table>

**GHS Properties**

<table>
<thead>
<tr>
<th>Classification</th>
<th>OSHA HCS 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity</td>
<td>Classification criteria not met; Acute Toxicity - Dermal - Classification criteria not met; Acute Toxicity - Inhalation - Classification criteria not met; Acute Toxicity - Oral - Classification criteria not met</td>
</tr>
<tr>
<td>Skin corrosion/Irritation</td>
<td>Classification criteria not met</td>
</tr>
<tr>
<td>Serious eye damage/Irritation</td>
<td>Classification criteria not met</td>
</tr>
<tr>
<td>Skin sensitization</td>
<td>Classification criteria not met</td>
</tr>
<tr>
<td>Respiratory sensitization</td>
<td>Classification criteria not met</td>
</tr>
<tr>
<td>Aspiration Hazard</td>
<td>Classification criteria not met</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Classification criteria not met</td>
</tr>
<tr>
<td>Germ Cell Mutagenicity</td>
<td>Classification criteria not met</td>
</tr>
<tr>
<td>Toxicity for Reproduction</td>
<td>Classification criteria not met</td>
</tr>
<tr>
<td>STOT-SE</td>
<td>Classification criteria not met</td>
</tr>
<tr>
<td>STOT-RE</td>
<td>Classification criteria not met</td>
</tr>
</tbody>
</table>

**Potential Health Effects**

**Inhalation**
- **Acute (Immediate)**: Under normal conditions of use, no health effects are expected.
- **Chronic (Delayed)**: No data available.

**Skin**
- **Acute (Immediate)**: Under normal conditions of use, no health effects are expected.
- **Chronic (Delayed)**: Prolonged or frequently repeated exposure may cause skin reactions in some individuals.

**Eye**
- **Acute (Immediate)**: Under normal conditions of use, no health effects are expected.
Chronic (Delayed)  • No data available.

Ingestion

Acute (Immediate)  • Under normal conditions of use, no health effects are expected.

Chronic (Delayed)  • No data available

Carcinogenic Effects  • No component of this product present at 0.1% or greater is listed by IARC, OSHA or NTP.

### Section 12 - Ecological Information

#### Toxicity

<table>
<thead>
<tr>
<th>CAS</th>
<th>Aquatic Toxicity-Fish: 96 Hour(s) LC50 Rainbow Trout 0.06 mg/L [Acute]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lambda 9.7 CS NDA</td>
<td>Aquatic Toxicity-Crustacea: 48 Hour(s) LC50 Water Flea <em>Daphnia magna</em> 0.0243 mg/L [Acute]</td>
</tr>
<tr>
<td></td>
<td>Aquatic Toxicity-Algae and Other Aquatic Plant(s): 72 Hour(s) LC50 Algae 28.7 mg/L [Acute]</td>
</tr>
</tbody>
</table>

#### Persistence and degradability
• No data available

#### Bioaccumulative potential
• No data available

#### Mobility in Soil
• No data available

#### Other adverse effects

**Potential Environmental Effects**  • This product is extremely toxic to aquatic organisms, including fish and invertebrates. This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds.

#### Other Information
• No data available

### Section 13 - Disposal Considerations

#### Waste treatment methods

**Product waste**  • Wastes resulting from the use of this product that cannot be used or chemically reprocessed must be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, state or local procedures.

**Packaging waste**  • Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. See product label for disposal instructions.

### Section 14 - Transport Information

<table>
<thead>
<tr>
<th>UN number</th>
<th>UN proper shipping name</th>
<th>Transport hazard class(es)</th>
<th>Packing group</th>
<th>Environmental hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT UN3082</td>
<td>Bulk packaging only: Environmentally hazardous substance, liquid, n.o.s (Lambda-cyhalothrin)</td>
<td>9</td>
<td>III</td>
<td>Marine Pollutant</td>
</tr>
</tbody>
</table>
Lambda 9.7 CSLambda 9.7 CSLambda 9.7 CSLambda 9.7 CS
Preparation Date: 11/May/2015
Revision Date: 14/January/2016
Format: GHS Language: English (US)
OSHA HCS 2012
Page 7 of 9

## Section 15 - Regulatory Information

### Safety, health and environmental regulations/legislation specific for the substance or mixture

**SARA Hazard Classifications**
- Acute, SARA Title III Section 313

**FIFRA – Pesticide Labeling**

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 includes other important information, including directions for use.

### CAUTION

**Precautionary Statements**

**HAZARDS TO HUMANS & DOMESTIC ANIMALS CAUTION:** Harmful if absorbed through skin. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco. Remove and wash contaminated clothing before reuse. Prolonged or frequently repeated skin contact may cause reactions in some individuals.

**First Aid**

- 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 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 continuing rinsing eye • Call a poison control center or doctor for treatment advice
- If swallowed • Do not give any liquid to the person • Do not induce vomiting unless told to do so by the poison control center or doctor • Do not give anything by mouth to an unconscious person
- If inhaled • 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.

**Environmental Hazards**

This product is extremely toxic to fish and other aquatic organisms. Do not contaminate water when cleaning equipment or disposing of equipment wash water. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Apply this product only as specified on this label. When making applications, care should be used to avoid
household pets particularly fish and reptile pets. 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 or weeds if bees are visiting the treatment area.

**Physical or Chemical Hazards**

Do not use this product in or on electrical equipment due to the possibility of shock hazard.

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS</th>
<th>TSCA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetophenone</td>
<td>98-86-2</td>
<td>Yes</td>
</tr>
<tr>
<td>Lambda-cyhalothrin</td>
<td>91465-08-6</td>
<td>No</td>
</tr>
</tbody>
</table>

**United States**

**Environment**

**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**
- Acetophenone
- Lambda-cyhalothrin

**U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities**
- Acetophenone 98-86-2
- Lambda-cyhalothrin 91465-08-6

**U.S. - CERCLA/SARA - Section 313 - Emission Reporting**
- Acetophenone 98-86-2 1.0 % de minimis concentration
- Lambda-cyhalothrin 91465-08-6

**U.S. - RCRA (Resource Conservation & Recovery Act) - Basis for Listing - Appendix VII**
- Acetophenone 98-86-2 Included in waste stream: F039
- Lambda-cyhalothrin 91465-08-6

**U.S. - RCRA (Resource Conservation & Recovery Act) - Hazardous Constituents - Appendix VIII to 40 CFR 261**
- Acetophenone 98-86-2 waste number U004
- Lambda-cyhalothrin 91465-08-6

**U.S. - RCRA (Resource Conservation & Recovery Act) - List for Hazardous Constituents**
- Acetophenone 98-86-2
- Lambda-cyhalothrin 91465-08-6

**U.S. - RCRA (Resource Conservation & Recovery Act) - Phase 4 LDR Rule - Universal Treatment Standards**
- Acetophenone 98-86-2 0.010 mg/L (wastewater); 9.7 mg/kg (nonwastewater)
- Lambda-cyhalothrin 91465-08-6

**U.S. - RCRA (Resource Conservation & Recovery Act) - TSD Facilities Ground Water Monitoring**
- Acetophenone 98-86-2
- Lambda-cyhalothrin 91465-08-6

**U.S. - RCRA (Resource Conservation & Recovery Act) - U Series Wastes - Acutely Toxic Wastes & Other Hazardous Characteristics**
- Acetophenone 98-86-2 waste number U004
- Lambda-cyhalothrin 91465-08-6
### Section 16 - Other Information

#### Revision Summary

<table>
<thead>
<tr>
<th>Revision Date</th>
<th>MSDS Number</th>
<th>Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>14/January/2016</td>
<td></td>
<td>Section 14 revised.</td>
</tr>
</tbody>
</table>

**Revision Date**  
• 14/January/2016

**Last Revision Date**  
• 11/May/2015

**Preparation Date**  
• 11/May/2015

**Disclaimer/Statement of Liability**

The information and statements herein are believed to be reliable but are not to be construed as a warranty or representation for which we assume legal responsibility. Users should undertake sufficient verification and testing to determine the suitability for their own particular purpose of any information or products referred to herein. **NO WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE IS MADE.**