SAFETY DATA SHEET

Lambda-Cyhalothrin / Decamethylcyclopentasiloxane Formulation

SECTION 1. IDENTIFICATION

Product name : Lambda-Cyhalothrin / Decamethylcyclopentasiloxane Formulation
Other means of identification : No data available

Manufacturer or supplier's details
Company name of supplier : Merck & Co., Inc
Address : 2000 Galloping Hill Road
          Kenilworth - New Jersey - U.S.A.  07033
Telephone : 908-740-4000
Emergency telephone : 1-908-423-6000
E-mail address : EHSDATASTEWARD@merck.com

Recommended use of the chemical and restrictions on use
Recommended use : Veterinary product
Restrictions on use : Not applicable

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the Hazardous Products Regulations
Acute toxicity (Inhalation) : Category 4
Acute toxicity (Dermal) : Category 4
Eye irritation : Category 2B
Specific target organ toxicity - single exposure : Category 1 (Nervous system)

GHS label elements
Hazard pictograms :

Signal Word : Danger
Hazard Statements : H312 + H332 Harmful in contact with skin or if inhaled.
                    H320 Causes eye irritation.
                    H370 Causes damage to organs (Nervous system).

Precautionary Statements : Prevention:
                           P260 Do not breathe mist or vapors.
                           P264 Wash skin thoroughly after handling.
                           P270 Do not eat, drink or smoke when using this product.
                           P271 Use only outdoors or in a well-ventilated area.
                           P280 Wear protective gloves and clothing.
Response:
P302 + P352 + P312 IF ON SKIN: Wash with plenty of soap and water. Call a doctor if you feel unwell.
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a doctor if you feel unwell.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P311 IF exposed or concerned: Call a doctor.
P337 + P313 If eye irritation persists: Get medical attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.

Storage:
P405 Store locked up.

Disposal:
P501 Dispose of contents and container to an approved waste disposal plant.

Other hazards
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture
Components

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Common Name/Synonym</th>
<th>CAS-No.</th>
<th>Concentration (% w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corn oil</td>
<td>Corn oil</td>
<td>8001-30-7</td>
<td>&gt;= 80 - &lt;= 100 *</td>
</tr>
<tr>
<td>lambda-cyhalothrin</td>
<td>A mixture of: α-cyano-3-phenoxybenzyl (Z)-(1R,3R)-[(S)-3-(2-chloro-3,3,3-trifluoroprop-1-enyl)]-2,2-dimethylcyclopropanecarboxylate</td>
<td>91465-08-6</td>
<td>&gt;= 1 - &lt; 5 *</td>
</tr>
</tbody>
</table>

* Actual concentration or concentration range is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

General advice : In the case of accident or if you feel unwell, seek medical advice immediately. When symptoms persist or in all cases of doubt seek medical advice.
If inhaled
- If inhaled, remove to fresh air.
- If not breathing, give artificial respiration.
- If breathing is difficult, give oxygen.
- Get medical attention.

In case of skin contact
- In case of contact, immediately flush skin with plenty of water.
- Remove contaminated clothing and shoes.
- Get medical attention.
- Wash clothing before reuse.
- Thoroughly clean shoes before reuse.

In case of eye contact
- In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.
- If easy to do, remove contact lens, if worn.
- Get medical attention.

If swallowed
- If swallowed, DO NOT induce vomiting unless directed to do so by medical personnel.
- Get medical attention.
- Rinse mouth thoroughly with water.
- Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed
- Harmful in contact with skin or if inhaled.
- Causes eye irritation.
- Causes damage to organs.

Protection of first-aiders
- First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists (see section 8).

Notes to physician
- Treat symptomatically and supportively.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
- Water spray
- Alcohol-resistant foam
- Carbon dioxide (CO2)
- Dry chemical

Unsuitable extinguishing media
- None known.

Specific hazards during fire fighting
- Vapors may form explosive mixtures with air.
- Exposure to combustion products may be a hazard to health.

Hazardous combustion products
- Carbon oxides
- Nitrogen oxides (NOx)
- Chlorine compounds
- Fluorine compounds
- Silicon oxides
- Formaldehyde

Specific extinguishing methods
- Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Use water spray to cool unopened containers.
- Remove undamaged containers from fire area if it is safe to do so.
- Evacuate area.

Special protective equipment for fire-fighters
- In the event of fire, wear self-contained breathing apparatus.
- Use personal protective equipment.

SECTION 6. ACCIDENTAL RELEASE MEASURES
SAFETY DATA SHEET

Lambda-Cyhalothrin / Decamethylcyclopentasiloxane Formulation

Personal precautions, protective equipment and emergency procedures:
Use personal protective equipment. Follow safe handling advice (see section 7) and personal protective equipment recommendations (see section 8).

Environmental precautions:
Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Prevent spreading over a wide area (e.g., by containment or oil barriers). Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up:
Soak up with inert absorbent material. For large spills, provide diking or other appropriate containment to keep material from spreading. If diked material can be pumped, store recovered material in appropriate container. Clean up remaining materials from spill with suitable absorbent. Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable. Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

SECTION 7. HANDLING AND STORAGE

Technical measures:
See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.

Local/Total ventilation:
If sufficient ventilation is unavailable, use with local exhaust ventilation.

Advice on safe handling:
Do not get on skin or clothing. Do not breathe mist or vapors. Do not swallow. Do not get in eyes. Wash skin thoroughly after handling. Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment. Keep container tightly closed. Do not eat, drink or smoke when using this product. Take care to prevent spills, waste and minimize release to the environment.

Conditions for safe storage:
Keep in properly labeled containers. Store locked up. Keep tightly closed. Keep in a cool, well-ventilated place. Store in accordance with the particular national regulations.

Materials to avoid:
Do not store with the following product types: Strong oxidizing agents Organic peroxides Explosives
Gases

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters / Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corn oil</td>
<td>8001-30-7</td>
<td>TWA EV (Mist)</td>
<td>10 mg/m³</td>
<td>CA QC OEL</td>
</tr>
<tr>
<td>lambda-cyhalothrin (ISO)</td>
<td>91465-08-6</td>
<td>TWA</td>
<td>5 µg/m³ (OEB 4)</td>
<td>Internal</td>
</tr>
</tbody>
</table>

Further information: Skin

| Wipe limit                   | 50 µg/100 cm² | Internal |

Occupational exposure limits of decomposition products

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters / Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde</td>
<td>50-00-0</td>
<td>TWA</td>
<td>0.75 ppm</td>
<td>CA AB OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.9 mg/m³</td>
<td>CA AB OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(c)</td>
<td>1 ppm</td>
<td>CA AB OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1.3 mg/m³</td>
<td>CA AB OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>0.1 ppm</td>
<td>CA BC OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL</td>
<td>0.3 ppm</td>
<td>CA BC OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL</td>
<td>1 ppm</td>
<td>CA ON OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C</td>
<td>1.5 ppm</td>
<td>CA ON OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C</td>
<td>2 ppm</td>
<td>CA QC OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3 mg/m³</td>
<td>CA QC OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>0.1 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL</td>
<td>0.3 ppm</td>
<td>ACGIH</td>
</tr>
</tbody>
</table>

Engineering measures: All engineering controls should be implemented by facility design and operated in accordance with GMP principles to protect products, workers, and the environment. Essentially no open handling permitted. Use closed processing systems or containment technologies. If handled in a laboratory, use a properly designed biosafety cabinet, fume hood, or other containment device if the potential exists for aerosolization. If this potential does not exist, handle over lined trays or benchtops.

Personal protective equipment

Respiratory protection: If adequate local exhaust ventilation is not available or exposure assessment demonstrates exposures outside the recommended guidelines, use respiratory protection.

Filter type: Combined particulates, inorganic gas/vapor and organic vapor type

Hand protection

Material: Chemical-resistant gloves
Remarks

Eye protection

Skin and body protection

Hygiene measures

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Color

Odor

Odor Threshold

pH

Melting point/freezing point

Initial boiling point and boiling range

Flash point

Evaporation rate

Flammability (solid, gas)

Flammability (liquids)

Upper explosion limit / Upper flammability limit
Lower explosion limit / Lower flammability limit: No data available

Vapor pressure: No data available

Relative vapor density: No data available

Relative density: No data available

Density: 0.924 - 0.974 g/cm³ (20 °C)

Solubility(ies)
  Water solubility: insoluble

Partition coefficient: n-octanol/water: No data available

Autoignition temperature: No data available

Decomposition temperature: No data available

Viscosity
  Viscosity, kinematic: 61.69 - 73.9 mm²/s

Explosive properties: Not explosive

Oxidizing properties: The substance or mixture is not classified as oxidizing.

Molecular weight: Not applicable

Particle size: Not applicable

SECTION 10. STABILITY AND REACTIVITY

Reactivity: Not classified as a reactivity hazard.

Chemical stability: Stable under normal conditions.

Possibility of hazardous reactions
  Vapors may form explosive mixture with air.
  Can react with strong oxidizing agents.
  Hazardous decomposition products will be formed at elevated temperatures.

Conditions to avoid: None known.

Incompatible materials: Oxidizing agents

Hazardous decomposition products
  Thermal decomposition: Formaldehyde

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation
Skin contact
Ingestion
Eye contact

**Acute toxicity**
Harmful in contact with skin or if inhaled.

**Product:**

<table>
<thead>
<tr>
<th>Toxicity Type</th>
<th>Species</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute oral toxicity</td>
<td>Rabbit</td>
<td>LD50 (Rat): &gt; 9,500 mg/kg</td>
</tr>
<tr>
<td>Acute inhalation toxicity</td>
<td>Rabbit</td>
<td>LC50 (Rat): &gt; 4.1 mg/l</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Remarks: No mortality observed at this dose.</td>
</tr>
<tr>
<td>Acute dermal toxicity</td>
<td>Rabbit</td>
<td>LD50 (Rabbit): &gt; 1,900 mg/kg</td>
</tr>
</tbody>
</table>

**Components:**

**Corn oil:**

<table>
<thead>
<tr>
<th>Toxicity Type</th>
<th>Species</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute oral toxicity</td>
<td>Rabbit</td>
<td>LD50 (Rat): &gt; 5,000 mg/kg</td>
</tr>
</tbody>
</table>

**lambda-cyhalothrin (ISO):**

<table>
<thead>
<tr>
<th>Toxicity Type</th>
<th>Species</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute oral toxicity</td>
<td>Rabbit</td>
<td>LD50 (Rat): 56 - 79 mg/kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LD50 (Mouse): 20 mg/kg</td>
</tr>
<tr>
<td>Acute inhalation toxicity</td>
<td>Rabbit</td>
<td>LC50 (Rat): 0.06 mg/l</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Exposure time: 4 h</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Test atmosphere: dust/mist</td>
</tr>
<tr>
<td>Acute dermal toxicity</td>
<td>Rabbit</td>
<td>LD50 (Rat): 632 - 696 mg/kg</td>
</tr>
</tbody>
</table>

**Acute toxicity (other routes of administration):**

<table>
<thead>
<tr>
<th>Toxicity Type</th>
<th>Species</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 (Rat): 250 - 750 mg/kg</td>
<td></td>
<td>Application Route: Intraperitoneal</td>
</tr>
</tbody>
</table>

**Skin corrosion/irritation**
Not classified based on available information.

**Product:**

<table>
<thead>
<tr>
<th>Species</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rabbit</td>
<td>Mild skin irritation</td>
</tr>
</tbody>
</table>

**Components:**

**lambda-cyhalothrin (ISO):**

<table>
<thead>
<tr>
<th>Species</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rabbit</td>
<td>No skin irritation</td>
</tr>
</tbody>
</table>

**Serious eye damage/eye irritation**
Causes eye irritation.

**Product:**

<table>
<thead>
<tr>
<th>Species</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rabbit</td>
<td></td>
</tr>
</tbody>
</table>
### Result

<table>
<thead>
<tr>
<th>Species</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rabbit</td>
<td>Mild eye irritation</td>
</tr>
</tbody>
</table>

### Respiratory or skin sensitization

#### Skin sensitization
Not classified based on available information.

#### Respiratory sensitization
Not classified based on available information.

### Product

<table>
<thead>
<tr>
<th>Species</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guinea pig</td>
<td>Not a skin sensitizer.</td>
</tr>
</tbody>
</table>

### Components:

**Lambda-cyhalothrin (ISO):**

<table>
<thead>
<tr>
<th>Test Type</th>
<th>Routes of exposure</th>
<th>Species</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnusson-Kligman-Test</td>
<td>Dermal</td>
<td>Guinea pig</td>
<td>Not a skin sensitizer.</td>
</tr>
</tbody>
</table>

### Germ cell mutagenicity

Not classified based on available information.

### Components:

**Lambda-cyhalothrin (ISO):**

<table>
<thead>
<tr>
<th>Genotoxicity in vitro</th>
<th>Test Type</th>
<th>Species</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Genotoxicity in vitro</td>
<td>Bacterial reverse mutation assay (AMES)</td>
<td>Mouse</td>
<td>negative</td>
</tr>
<tr>
<td></td>
<td>Chromosomal aberration</td>
<td></td>
<td>negative</td>
</tr>
<tr>
<td></td>
<td>unscheduled DNA synthesis assay</td>
<td></td>
<td>negative</td>
</tr>
<tr>
<td></td>
<td>In vitro mammalian cell gene mutation test</td>
<td></td>
<td>negative</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Genotoxicity in vivo</th>
<th>Micronucleus test</th>
<th>Mouse</th>
<th>negative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cell type: Bone marrow</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Application Route: Intraperitoneal
Result: negative

Carcinogenicity
Not classified based on available information.

Components:

**lambda-cyhalothrin (ISO):**

- **Species:** Mouse
- **Application Route:** oral (feed)
- **Exposure time:** 2 Years
- **Result:** negative
- **Remarks:** Based on data from similar materials

- **Species:** Rat
- **Application Route:** oral (feed)
- **Exposure time:** 2 Years
- **Result:** negative
- **Remarks:** Based on data from similar materials

Reproductive toxicity
Not classified based on available information.

Components:

**lambda-cyhalothrin (ISO):**

**Effects on fertility**
- **Test Type:** Three-generation study
- **Species:** Rat
- **Application Route:** oral (feed)
- **General Toxicity Parent:** NOAEL: 2 mg/kg body weight
- **General Toxicity F1:** LOAEL: 6.7 mg/kg body weight
- **Symptoms:** Reduced offspring weight gain.
- **Result:** No effects on fertility.
- **Remarks:** Based on data from similar materials

**Effects on fetal development**
- **Test Type:** Development
- **Species:** Rat
- **Application Route:** Oral
- **General Toxicity Maternal:** NOAEL: 10 mg/kg body weight
- **Developmental Toxicity:** LOAEL: 15 mg/kg body weight
- **Result:** No effects on fetal development., Reduced maternal body weight gain., Reduced fetal weight.
- **Remarks:** Based on data from similar materials

- **Test Type:** Development
- **Species:** Rabbit
- **Application Route:** Oral
- **General Toxicity Maternal:** NOAEL: 10 mg/kg body weight
- **Developmental Toxicity:** NOAEL: 30 mg/kg body weight
- **Result:** No effects on fetal development., Reduced maternal body weight gain., Reduced fetal weight.
- **Remarks:** Based on data from similar materials
STOT-single exposure
Causes damage to organs (Nervous system).

Components:

lambda-cyhalothrin (ISO):
Target Organs : Nervous system
Assessment : Causes damage to organs.

STOT-repeated exposure
Not classified based on available information.

Repeated dose toxicity

Components:

lambda-cyhalothrin (ISO):
Species : Dog
NOAEL : 2.5 mg/kg
LOAEL : 12.5 mg/kg
Application Route : oral (feed)
Exposure time : 90 d
Symptoms : reduced body weight gain, reduced food consumption

Species : Rat
NOAEL : 10 mg/kg
LOAEL : 50 mg/kg
Application Route : Dermal
Exposure time : 21 d
Target Organs : Nervous system

Species : Rat
NOAEL : 0.08 mg/kg
LOAEL : 0.9 mg/kg
Application Route : Inhalation
Exposure time : 21 d
Target Organs : Nervous system

Species : Dog
NOAEL : 0.1 mg/kg
LOAEL : 0.5 mg/kg
Application Route : Oral
Exposure time : 1 y
Target Organs : Nervous system
Symptoms : Gastrointestinal disturbance, Vomiting, Convulsions, ataxia, Liver effects

Aspiration toxicity
Not classified based on available information.
Experience with human exposure

**Product:**
- **Skin contact:** Symptoms: May cause, Local irritation
- **Eye contact:** Symptoms: Irritating

**Components:**
- **lambda-cyhalothrin (ISO):**
  - **Inhalation:** Symptoms: Cough, Local irritation, sneezing
  - **Skin contact:** Symptoms: Skin irritation, tingling, superficial burning sensation, Local irritation
    - Remarks: Can be absorbed through skin.
  - **Eye contact:** Symptoms: Eye irritation
  - **Ingestion:** Symptoms: Gastrointestinal disturbance

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

**Components:**

**Corn oil:**
- **Toxicity to fish**
  - LC0 (Danio rerio (zebra fish)): > 100 mg/l
    - Exposure time: 96 h
    - Remarks: Based on data from similar materials
- **Toxicity to daphnia and other aquatic invertebrates**
  - EC0 (Daphnia magna (Water flea)): > 100 mg/l
    - Exposure time: 48 h
    - Remarks: Based on data from similar materials
- **Toxicity to algae/aquatic plants**
  - EL50 (Desmodesmus subspicatus (green algae)): > 100 mg/l
    - Exposure time: 72 h
    - Remarks: Based on data from similar materials

**lambda-cyhalothrin (ISO):**
- **Toxicity to fish**
  - LC50 (Oncorhynchus mykiss (rainbow trout)): 0.00019 mg/l
    - Exposure time: 96 h
    - Method: OECD Test Guideline 203
    - Remarks: Based on data from similar materials
  - LC50 (Lepomis macrochirus (Bluegill sunfish)): 0.00021 mg/l
    - Exposure time: 96 h
    - Method: OECD Test Guideline 203
    - Remarks: Based on data from similar materials
- **Toxicity to daphnia and other aquatic invertebrates**
  - EC50 (Daphnia magna (Water flea)): 0.00004 mg/l
    - Exposure time: 48 h
    - Method: OECD Test Guideline 202
    - Remarks: Based on data from similar materials
- **Toxicity to fish (Chronic toxicity)**
  - NOEC (Pimephales promelas (fathead minnow)): 0.000062 mg/l
Exposure time: 32 d  
Method: OECD Test Guideline 210  
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity):  
NOEC (Daphnia magna (Water flea)): 0.0035 µg/l  
Exposure time: 21 d  
Method: OECD Test Guideline 211  
Remarks: Based on data from similar materials

Persistence and degradability

**Components:**

**Corn oil:**
Biodegradability: Result: Readily biodegradable.  
Remarks: Based on data from similar materials

Bioaccumulative potential

**Components:**

**Corn oil:**
Partition coefficient: n-octanol/water: Remarks: No data available

**lambda-cyhalothrin (ISO):**
Bioaccumulation: Bioconcentration factor (BCF): 2,240  
Method: OECD Test Guideline 305

Partition coefficient: n-octanol/water: log Pow: 7.0 (20 °C)

Mobility in soil

**Components:**

**lambda-cyhalothrin (ISO):**
Distribution among environmental compartments: log Koc: 5.5

Other adverse effects
No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

**Waste from residues:** Dispose of in accordance with local regulations.
**Contaminated packaging:** Empty containers should be taken to an approved waste handling site for recycling or disposal.  
If not otherwise specified: Dispose of as unused product.
SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG
UN number : UN 3082
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (lambda-cyhalothrin (ISO))
Class : 9
Packing group : III
Labels :

IATA-DGR
UN/ID No. : UN 3082
Proper shipping name : Environmentally hazardous substance, liquid, n.o.s. (lambda-cyhalothrin (ISO))
Class : 9
Packing group : III
Labels : Miscellaneous
Packing instruction (cargo aircraft) : 964
Packing instruction (passenger aircraft) : 964
Environmentally hazardous : yes

IMDG-Code
UN number : UN 3082
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (lambda-cyhalothrin (ISO))
Class : 9
Packing group : III
Labels : 9
EmS Code : F-A, S-F
Marine pollutant : yes

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable for product as supplied.

Domestic regulation

TDG
UN number : UN 3082
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (lambda-cyhalothrin (ISO))
Class : 9
Packing group : III
Labels : 9
ERG Code : 171
Marine pollutant : yes(lambda-cyhalothrin (ISO))
SAFETY DATA SHEET

Lambda-Cyhalothrin / Decamethylcyclopentasiloxane Formulation

<table>
<thead>
<tr>
<th>Version</th>
<th>Revision Date:</th>
<th>SDS Number:</th>
<th>Date of last issue:</th>
<th>Date of first issue:</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.6</td>
<td>08/27/2021</td>
<td>1078693-00014</td>
<td>04/09/2021</td>
<td>11/18/2016</td>
</tr>
</tbody>
</table>

**Special precautions for user**

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

**SECTION 15. REGULATORY INFORMATION**

The ingredients of this product are reported in the following inventories:

- AICS: not determined
- DSL: not determined
- IECSC: not determined

**SECTION 16. OTHER INFORMATION**

**Full text of other abbreviations**

- **ACGIH**: USA. ACGIH Threshold Limit Values (TLV)
- **CA AB OEL**: Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
- **CA BC OEL**: Canada. British Columbia OEL
- **CA ON OEL**: Ontario Table of Occupational Exposure Limits made under the Occupational Health and Safety Act.
- **CA QC OEL**: Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants

- **ACGIH / TWA**: 8-hour, time-weighted average
- **ACGIH / STEL**: Short-term exposure limit
- **CA AB OEL / TWA**: 8-hour Occupational exposure limit
- **CA AB OEL / (c)**: ceiling occupational exposure limit
- **CA BC OEL / TWA**: 8-hour time weighted average
- **CA BC OEL / STEL**: short-term exposure limit
- **CA ON OEL / C**: Ceiling Limit (C)
- **CA ON OEL / STEL**: Short-Term Exposure Limit (STEL)
- **CA QC OEL / TWAEV**: Time-weighted average exposure value
- **CA QC OEL / C**: Ceiling

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International
Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50% of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System


Revision Date: 08/27/2021
Date format: mm/dd/yyyy

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user’s end product, if applicable.

CA / Z8