1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Lambda-Cyhalothrin / Decamethylcyclopentasiloxane Formulation

Manufacturer or supplier's details
Company: MSD
Address: No. 485 Jing Tai Road
Pu Tuo District - Shanghai - China 200331
Telephone: +1-908-740-4000
Emergency telephone number: 86-571-87268110
E-mail address: EHSDATASTEWARD@msd.com

Recommended use of the chemical and restrictions on use
Recommended use: Veterinary product

2. HAZARDS IDENTIFICATION

Emergency Overview

<table>
<thead>
<tr>
<th>Appearance</th>
<th>liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour</td>
<td>gold</td>
</tr>
<tr>
<td>Odour</td>
<td>oily</td>
</tr>
</tbody>
</table>

Harmful in contact with skin or if inhaled. Causes eye irritation. May cause damage to organs. Very toxic to aquatic life with long lasting effects.

GHS Classification

- Acute toxicity (Inhalation): Category 4
- Acute toxicity (Dermal): Category 4
- Serious eye damage/eye irritation: Category 2B
- Specific target organ toxicity - single exposure: Category 2
- Short-term (acute) aquatic hazard: Category 1
- Long-term (chronic) aquatic hazard: Category 1

GHS label elements
Hazard pictograms :

Signal word : Warning

Hazard statements :
H312 + H332 Harmful in contact with skin or if inhaled.
H320 Causes eye irritation.
H371 May cause damage to organs.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements :

Prevention:
P260 Do not breathe mist or vapours.
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.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing.

Response:
P302 + P352 + P312 IF ON SKIN: Wash with plenty of water.
Call a POISON CENTER/ doctor if you feel unwell.
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ 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 POISON CENTER/ doctor.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P391 Collect spillage.

Storage:
P405 Store locked up.

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

Physical and chemical hazards
Not classified based on available information.

Health hazards
Harmful if inhaled. Harmful in contact with skin. Causes eye irritation. May cause damage to organs.

Environmental hazards
Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.
Lambda-Cyhalothrin / Decamethylcyclopentasiloxane Formulation

Other hazards which do not result in classification
None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture: Mixture

<table>
<thead>
<tr>
<th>Components</th>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>Concentration (% w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Decamethylcyclopentasiloxane</td>
<td>541-02-6</td>
<td>&gt;= 1 - &lt; 10</td>
</tr>
<tr>
<td></td>
<td>lambda-cyhalothrin (ISO)</td>
<td>91465-08-6</td>
<td>&gt;= 1 - &lt; 2.5</td>
</tr>
</tbody>
</table>

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.
May cause 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.

5. FIREFIGHTING MEASURES

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

Unsuitable extinguishing media: None known.
Lambda-Cyhalothrin / Decamethylcyclopentasiloxane Formulation

Specific hazards during firefighting: Vapours 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 firefighters: In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

6. ACCIDENTAL RELEASE MEASURES

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 dyking or other appropriate containment to keep material from spreading. If dyked 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.

7. HANDLING AND STORAGE

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

Components 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>lambda-cyhalothrin (ISO)</td>
<td>91465-08-6</td>
<td>TWA</td>
<td>5 µg/m3 (OEB 4)</td>
<td>Internal</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Wipe limit</strong> 50 µg/100 cm²</td>
<td>Internal</td>
</tr>
</tbody>
</table>

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>MAC</td>
<td>0.5 mg/m3</td>
<td>CN OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>TWA</strong> 0.1 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>STEL</strong> 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/vapour and organic vapour type

**Eye/face protection**
- Wear safety glasses with side shields or goggles.
- If the work environment or activity involves dusty conditions, mists or aerosols, wear the appropriate goggles.
- Wear a faceshield or other full face protection if there is a potential for direct contact to the face with dusts, mists, or aerosols.

**Skin and body protection**
- Work uniform or laboratory coat.
- Additional body garments should be used based upon the task being performed (e.g., sleevelets, apron, gauntlets, disposable suits) to avoid exposed skin surfaces.
- Use appropriate degowning techniques to remove potentially contaminated clothing.

**Hand protection**
- **Material**: Chemical-resistant gloves
- **Remarks**: Consider double gloving.

**Hygiene measures**
- If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the working place.
- When using do not eat, drink or smoke.
- Wash contaminated clothing before re-use.
- The effective operation of a facility should include review of engineering controls, proper personal protective equipment, appropriate degowning and decontamination procedures, industrial hygiene monitoring, medical surveillance and the use of administrative controls.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance**
- Liquid

**Colour**
- Gold

**Odour**
- Oily

**Odour Threshold**
- No data available

**pH**
- No data available

**Melting point/freezing point**
- No data available
<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial boiling point and boiling range</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt; 93.3 °C</td>
</tr>
<tr>
<td>Method</td>
<td>Tag closed cup</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flammability (liquids)</td>
<td>No data available</td>
</tr>
<tr>
<td>Upper explosion limit / Upper flammability limit</td>
<td>No data available</td>
</tr>
<tr>
<td>Lower explosion limit / Lower flammability limit</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapour density</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>No data available</td>
</tr>
<tr>
<td>Density</td>
<td>0.924 - 0.974 g/cm³ (20 °C)</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td></td>
</tr>
<tr>
<td>Water solubility</td>
<td>insoluble</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity</td>
<td></td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>61.69 - 73.9 mm²/s</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not explosive</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>The substance or mixture is not classified as oxidizing.</td>
</tr>
<tr>
<td>Molecular weight</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Particle size</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

### 10. STABILITY AND REACTIVITY

Reactivity: Not classified as a reactivity hazard.
Lambda-Cyhalothrin / Decamethylcyclopentasiloxane Formulation

Chemical stability: Stable under normal conditions.
Possibility of hazardous reactions:
- Vapours 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: Formaldehyde

11. TOXICOLOGICAL INFORMATION

Exposure routes:
- Inhalation
- Skin contact
- Ingestion
- Eye contact

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

Product:
- Acute oral toxicity: LD50 (Rat): > 9,500 mg/kg
- Acute inhalation toxicity: LC50 (Rat): > 4.1 mg/l
  Remarks: No mortality observed at this dose.
- Acute dermal toxicity: LD50 (Rabbit): > 1,900 mg/kg

Components:

Decamethylcyclopentasiloxane:
- Acute oral toxicity: LD50 (Rat): > 5,000 mg/kg
- Acute inhalation toxicity: LC50 (Rat): 8.67 mg/l
  Exposure time: 4 h
  Test atmosphere: dust/mist
  Method: OECD Test Guideline 403
- Acute dermal toxicity: LD50 (Rabbit): > 2,000 mg/kg
  Assessment: The substance or mixture has no acute dermal toxicity

lambda-cyhalothrin (ISO):
- Acute oral toxicity: LD50 (Rat): 56 - 79 mg/kg
- LD50 (Mouse): 20 mg/kg
- Acute inhalation toxicity: LC50 (Rat): 0.06 mg/l
  Exposure time: 4 h
Lambda-Cyhalothrin / Decamethylcyclopentasiloxane Formulation

Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rat): 632 - 696 mg/kg

Acute toxicity (other routes of administration) : LD50 (Rat): 250 - 750 mg/kg
Application Route: Intraperitoneal

Skin corrosion/irritation
Not classified based on available information.

Product:
Species : Rabbit
Result : Mild skin irritation

Components:
Decamethylcyclopentasiloxane:
Species : Rabbit
Result : No skin irritation

Lambda-cyhalothrin (ISO):
Species : Rabbit
Result : No skin irritation

Serious eye damage/eye irritation
Causes eye irritation.

Product:
Species : Rabbit
Result : Mild eye irritation

Components:
Decamethylcyclopentasiloxane:
Species : Rabbit
Result : No eye irritation

Lambda-cyhalothrin (ISO):
Species : Rabbit
Result : Mild eye irritation

Respiratory or skin sensitisation

Skin sensitisation
Not classified based on available information.

Respiratory sensitisation
Not classified based on available information.
Lambda-Cyhalothrin / Decamethylcyclopentasiloxane Formulation

Product:
Species: Guinea pig
Result: Not a skin sensitizer.

Components:
Decamethylcyclopentasiloxane:
Test Type: Local lymph node assay (LLNA)
Exposure routes: Skin contact
Species: Mouse
Result: negative

lambda-cyhalothrin (ISO):
Test Type: Magnusson-Kligman-Test
Exposure routes: Dermal
Species: Guinea pig
Result: Not a skin sensitizer.

Germ cell mutagenicity
Not classified based on available information.

Components:
Decamethylcyclopentasiloxane:
Genotoxicity in vitro:
  Test Type: Bacterial reverse mutation assay (AMES)
  Method: OECD Test Guideline 471
  Result: negative

  Test Type: Chromosome aberration test in vitro
  Method: OECD Test Guideline 473
  Result: negative

  Test Type: In vitro mammalian cell gene mutation test
  Result: negative

Genotoxicity in vivo:
  Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
  Species: Rat
  Application Route: inhalation (vapour)
  Method: OECD Test Guideline 474
  Result: negative

  Test Type: Unscheduled DNA synthesis (UDS) test with mammalian liver cells in vivo
  Species: Rat
  Application Route: Inhalation
  Method: OECD Test Guideline 486
  Result: negative

lambda-cyhalothrin (ISO):
Genotoxicity in vitro:
- Test Type: Bacterial reverse mutation assay (AMES)
  Result: negative
- Test Type: Chromosomal aberration
  Test system: Human lymphocytes
  Result: negative
- Test Type: unscheduled DNA synthesis assay
  Test system: rat hepatocytes
  Result: negative
- Test Type: In vitro mammalian cell gene mutation test
  Test system: mouse lymphoma cells
  Result: negative

Genotoxicity in vivo:
- Test Type: Micronucleus test
  Species: Mouse
  Cell type: Bone marrow
  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

**Decamethylcyclcopentasiloxane:**
- Effects on fertility: Test Type: Two-generation reproduction toxicity study
  - Species: Rat
  - Application Route: inhalation (vapour)
  - Method: OPPTS 870.3800
  - Result: negative

- Effects on foetal development:
  - Test Type: Two-generation reproduction toxicity study
Lambda-Cyhalothrin / Decamethylcyclopenta-siloxane Formulation

Version: 3.9  Revision Date: 2021/08/27  SDS Number: 1078709-00013  Date of last issue: 2020/10/10  Date of first issue: 2016/11/18

Species: Rat  Application Route: inhalation (vapour)  Method: OPPTS 870.3800  Result: negative

**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 foetal 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 foetal development, Reduced maternal body weight gain, Reduced foetal weight  Remarks: Based on data from similar materials

**STOT - single exposure**
May cause damage to organs.

**Components:**

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

**STOT - repeated exposure**
Not classified based on available information.

**Repeated dose toxicity**

**Components:**

**Decamethylcyclopentasiloxane:**
Species: Rat  NOAEL: 1,000 mg/kg
LOAEL : > 1,000 mg/kg
Application Route : Ingestion
Method : OECD Test Guideline 408

**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 yr
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
12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

Decamethylcyclopentasiloxane:

Toxicity to fish: LC50 (Oncorhynchus mykiss (rainbow trout)): > 16 µg/l
Exposure time: 96 h
Remarks: No toxicity at the limit of solubility

Toxicity to daphnia and other aquatic invertebrates:

EC50 (Daphnia magna (Water flea)): > 2.9 µg/l
Exposure time: 48 h
Method: OECD Test Guideline 202
Remarks: No toxicity at the limit of solubility

Toxicity to algae/aquatic plants:

ErC50 (Pseudokirchneriella subcapitata (green algae)): > 12 µg/l
Exposure time: 96 h
Method: OECD Test Guideline 201
Remarks: No toxicity at the limit of solubility

EC10 (Pseudokirchneriella subcapitata (green algae)): > 12 µg/l
Exposure time: 96 h
Method: OECD Test Guideline 201
Remarks: No toxicity at the limit of solubility

Toxicity to fish (Chronic toxicity):

NOEC (Oncorhynchus mykiss (rainbow trout)): 14 µg/l
Exposure time: 90 d
Method: OECD Test Guideline 210
Remarks: No toxicity at the limit of solubility

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity):

NOEC (Daphnia magna (Water flea)): 15 µg/l
Exposure time: 21 d
Method: OECD Test Guideline 211
Remarks: No toxicity at the limit of solubility

Toxicity to microorganisms:

EC50: > 2,000 mg/l
Exposure time: 3 h
Method: 88/302/EC

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
Lambda-Cyhalothrin / Decamethylcyclopenta-siloxane Formulation

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

M-Factor (Acute aquatic toxicity) : 10,000

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

M-Factor (Chronic aquatic toxicity) : 10,000

Persistence and degradability

Components:
Decamethylcyclopentasiloxane:
Biodegradability : Result: Not readily biodegradable.
Biodegradation: 0.14 %
Exposure time: 28 d
Method: OECD Test Guideline 310

Bioaccumulative potential

Components:
Decamethylcyclopentasiloxane:
Bioaccumulation : Species: Pimephales promelas (fathead minnow)
Bioconcentration factor (BCF): 7,060 - 13,300
Method: OECD Test Guideline 305

Partition coefficient: n-octanol/water : log Pow: 8.023

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)
SAFETY DATA SHEET  
according to GB/T 16483 and GB/T 17519

Lambda-Cyhalothrin / Decamethylcyclopenta-siloxane Formulation

Mobility in soil

Components:

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

Other adverse effects
No data available

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.

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 : 9

**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
Lambda-Cyhalothrin / Decamethylcyclopenta-siloxane Formulation

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.

National Regulations

GB 6944/12268
UN number : UN 3082
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (lambda-cyhalothrin (ISO))
Class : 9
Packing group : III
Labels : 9

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.

15. REGULATORY INFORMATION

National regulatory information
Law on the Prevention and Control of Occupational Diseases

The components of this product are reported in the following inventories:
AICS : not determined
DSL : not determined
IECSC : not determined

16. OTHER INFORMATION

Further information
Date format : yyyy/mm/dd

Full text of other abbreviations
ACGIH : USA. ACGIH Threshold Limit Values (TLV)
CN OEL : Occupational exposure limits for hazardous agents in the workplace - Chemical hazardous agents.
ACGIH / TWA : 8-hour, time-weighted average
ACGIH / STEL : Short-term exposure limit
Lambda-Cyhalothrin / Decamethylcyclopentasiloxane Formulation

Version 3.9 Revision Date: 2021/08/27 SDS Number: 1078709-00013 Date of last issue: 2020/10/10
Date of first issue: 2016/11/18

<table>
<thead>
<tr>
<th>CN OEL / MAC</th>
<th>Maximum allowable concentration</th>
</tr>
</thead>
</table>

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

Disclaimer
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.

CN / EN