1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier
- Trade name: DISCUS® L
- EPA Registration No.: 59807-18

Relevant identified uses of the substance or mixture and uses advised against
- Use: Insecticide
- Restrictions on use: See product label for restrictions.

Company information
- OHP, Inc.
- PO Box 746
- Bluffton, SC  29910-0746
- (800) 659-6745

Emergency telephone number
- TRANSPORTATION EMERGENCY (24 hours a day) call: Chemtrec: 1-800-424-9300
- MEDICAL EMERGENCY (24 hours a day) and Product Information call: 1-800-356-4647
- SDS Information or Request: ohp.com

2. HAZARDS IDENTIFICATION

Classification in accordance with regulation
- HCS 29CFR §1910.1200
- This material is not hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

Other hazards
- No particular hazards known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Hazardous Component Name</th>
<th>CAS-No.</th>
<th>Concentration % by weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imidacloprid</td>
<td>138261-41-3</td>
<td>2.94</td>
</tr>
<tr>
<td>Cyfluthrin</td>
<td>68359-37-5</td>
<td>0.7</td>
</tr>
<tr>
<td>Glycerine</td>
<td>56-81-5</td>
<td>12.0</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Description of first aid measures
- General advice: When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.
- Inhalation: Move 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 physician or poison control center immediately.
- Skin contact: Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water for at least 15 minutes. Call a physician or poison control center immediately.
- Eye contact: 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 continue rinsing eye. Call a physician or poison control center immediately.
- Ingestion: Call a physician or poison control center immediately. Rinse out mouth and give water in small sips to drink. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. Do not leave victim unattended.

Most important symptoms and effects, both acute and delayed
- Symptoms: To date no symptoms are known.

Indication of any immediate medical attention and special treatment needed
- Treatment: Appropriate supportive and symptomatic treatment as indicated by the patient’s condition is recommended. There is no specific antidote.

5. FIREFIGHTING MEASURES

Extinguishing media
- Suitable: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- Unsuitable: High volume water jet

Special hazards arising from the substance or mixture: Dangerous gases are evolved in the event of a fire.
Advice for firefighters

Special protective equipment for fire-fighters: Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.

Further information: Keep out of smoke. Fight fire from upwind position. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses.

Flash point: > 93 °C
Autoignition temperature: no data available
Lower explosion limit: no data available
Upper explosion limit: no data available
Explosivity: not applicable

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Precautions: Remove all sources of ignition. Isolate hazard area. Keep unauthorized people away. Avoid contact with spilled product or contaminated surfaces.

Methods and materials for containment and cleaning up

Methods for cleaning up: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Collect and transfer the product into a properly labelled and tightly closed container. Clean contaminated floors and objects thoroughly, observing environmental regulations.

Additional advice: Use personal protective equipment. Do not allow to enter soil, waterways or waste water canal.

Reference to other sections: Information regarding safe handling, see section 7. Information regarding personal protective equipment, see section 8. Information regarding waste disposal, see section 13.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling: Use only in area provided with appropriate exhaust ventilation. Handle and open container in a manner as to prevent spillage.

Hygiene measures: Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics. Remove Personal Protective Equipment (PPE) immediately after handling this product. Before removing gloves clean them with soap and water. Remove soiled clothing immediately and clean thoroughly before using again. Wash thoroughly and put on clean clothing.

Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers: Store in a cool, dry place and in such a manner as to prevent cross contamination with other crop protection products, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Control parameters</th>
<th>Update</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imidacloprid</td>
<td>138261-41-3</td>
<td>50μg/m3 (ST ESL)</td>
<td>07 2011</td>
<td>TX ESL</td>
</tr>
<tr>
<td>Imidacloprid</td>
<td>138261-41-3</td>
<td>5μg/m3 (AN ESL)</td>
<td>07 2011</td>
<td>TX ESL</td>
</tr>
<tr>
<td>Imidacloprid</td>
<td>138261-41-3</td>
<td>0.7 mg/m3 (TWA)</td>
<td></td>
<td>OES BCS*</td>
</tr>
<tr>
<td>Cyfluthrin (Particulate.)</td>
<td>68359-37-5</td>
<td>5μg/m3 (AN ESL)</td>
<td>02 2013</td>
<td>TX ESL</td>
</tr>
<tr>
<td>Cyfluthrin (Particulate.)</td>
<td>68359-37-5</td>
<td>50μg/m3 (ST ESL)</td>
<td>02 2013</td>
<td>TX ESL</td>
</tr>
<tr>
<td>Cyfluthrin</td>
<td>68359-37-5</td>
<td>0.01 mg/m3 (TWA)</td>
<td></td>
<td>OES BCS*</td>
</tr>
<tr>
<td>Glycerine (Respirable fraction.)</td>
<td>56-81-5</td>
<td>5 mg/m3 (PEL)</td>
<td>02 2006</td>
<td>OSHA Z1</td>
</tr>
<tr>
<td>Glycerine (Total dust.)</td>
<td>56-81-5</td>
<td>15 mg/m3 (PEL)</td>
<td>02 2006</td>
<td>OSHA Z1</td>
</tr>
<tr>
<td>Glycerine (Total dust.)</td>
<td>56-81-5</td>
<td>10 mg/m3 (TWA)</td>
<td>1989</td>
<td>OSHA Z1A</td>
</tr>
<tr>
<td>Glycerine (Respirable fraction.)</td>
<td>56-81-5</td>
<td>5 mg/m3 (TWA)</td>
<td>1989</td>
<td>OSHA Z1A</td>
</tr>
<tr>
<td>Glycerine (Total dust and mist.)</td>
<td>56-81-5</td>
<td>10 mg/m3 (TWA)</td>
<td>06 2008</td>
<td>TN OEL</td>
</tr>
</tbody>
</table>
**Control parameters continued**

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Control parameters</th>
<th>Update</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycerine (Respirable fraction and dust or fume.)</td>
<td>56-81-5</td>
<td>5 mg/m³ (TWA)</td>
<td>06 2008</td>
<td>TN OEL</td>
</tr>
<tr>
<td>Glycerine (Vapor.)</td>
<td>56-81-5</td>
<td>1000 ug/m³ (ST ESL)</td>
<td>02 2013</td>
<td>TX ESL</td>
</tr>
<tr>
<td>Glycerine (Particulate.)</td>
<td>56-81-5</td>
<td>50 ug/m³ (ST ESL)</td>
<td>02 2013</td>
<td>TX ESL</td>
</tr>
<tr>
<td>Glycerine (Vapor.)</td>
<td>56-81-5</td>
<td>100 ug/m³ (AN ESL)</td>
<td>02 2013</td>
<td>TX ESL</td>
</tr>
<tr>
<td>Glycerine (Particulate.)</td>
<td>56-81-5</td>
<td>5 ug/m³ (AN ESL)</td>
<td>02 2013</td>
<td>TX ESL</td>
</tr>
</tbody>
</table>

* OES BCS: Internal Bayer CropScience “Occupational Exposure Standard”

**Exposure controls**

- **Personal protective equipment**: In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

- **Respiratory protection**: When respirators are required, select NIOSH approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industry recommendations.

- **Hand protection**: Chemical resistant nitrile rubber gloves

- **Eye protection**: Safety glasses with side-shields

- **Skin and body protection**: Wear long-sleeved shirt and long pants and shoes plus socks.

- **General protective measures**: Follow manufacturer’s instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and warm/tepid water. Keep and wash PPE separately from other laundry.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

- **Appearance**: tan
- **Physical State**: liquid
- **Odor**: weak
- **pH**: no data available
- **Odour Threshold**: no data available
- **Vapor Pressure**: no data available
- **Vapor Density (Air = 1)**: no data available
- **Density**: ca. 1.05 g/cm³ at 20 °C
- **Evaporation rate**: no data available
- **Boiling Point**: no data available
- **Melting / Freezing Point**: no data available
- **Water solubility**: dispersible
- **Minimum Ignition Energy**: not applicable
- **Decomposition temperature**: not applicable
- **Partition coefficient**: n-octanol/water: no data available
- **Viscosity**: 350 - 600 mPa.s at 20 °C
  - Velocity gradient 0.5 /s
- **Flash point**: > 93 °C
- **Autoignition temperature**: no data available
- **Lower explosion limit**: no data available
- **Upper explosion limit**: no data available
- **Explosivity**: not applicable

**10. STABILITY AND REACTIVITY**

- **Reactivity**
- **Thermal decomposition**: not applicable
- **Chemical stability**: Stable under normal conditions.

- **Possibility of hazardous reactions**: No dangerous reaction known under conditions of normal use.

- **Conditions to avoid**: no data available

- **Incompatible materials**: Strong oxidizing agents, Bases

- **Hazardous decomposition products**: No decomposition products expected under normal conditions of use.
11. TOXICOLOGICAL INFORMATION

Exposure routes: Eye contact, Skin Absorption, Inhalation, Ingestion

Immediate Effects

Eye: Moderate eye irritation.
Skin: Harmful if absorbed through skin.
Ingestion: Harmful if swallowed.
Inhalation: Harmful if inhaled.

Information on toxicological effects

Acute oral toxicity: LD50 (male rat) > 5,000 mg/kg, LD50 (female rat) > 5,100 mg/kg.

Acute inhalation toxicity:
LC50 (male/female combined rat) > 2.23 mg/l, Exposure time: 4 h
Determined in the form of liquid aerosol.

LC50 (male/female combined rat) > 8.92 mg/l, Exposure time: 1 h
Determined in the form of liquid aerosol. Extrapolated from the 4 hr LC50.

Acute dermal toxicity: LD50 (male/female combined rat) > 5,030 mg/kg.

Skin irritation: No skin irritation (rabbit)
Eye irritation: Mild eye irritation (rabbit)
Sensitisation: Non-sensitizing (guinea pig)

Assessment repeated dose toxicity

Imidacloprid did not cause specific target organ toxicity in experimental animal studies. The toxic effects of Cyfluthrin are related to transient hyperactivity typical for pyrethroid neurotoxicity.

Assessment mutagenicity

Imidacloprid was not mutagenic or genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests. Cyfluthrin was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Assessment carcinogenicity

Imidacloprid was not carcinogenic in lifetime feeding studies in rats and mice. Cyfluthrin was not carcinogenic in lifetime feeding studies in rats and mice.

ACGIH: None.

NTP: None.
IARC: None.
OSHA: None.

Assessment toxicity to reproduction

Imidacloprid caused reproduction toxicity in a two-generation study in rats only at dose levels also toxic to the parent animals. The reproduction toxicity seen with Imidacloprid is related to parental toxicity.
Cyfluthrin caused reproduction toxicity in a two-generation study in rats only at dose levels also toxic to the parent animals. The reproduction toxicity seen with Cyfluthrin is related to parental toxicity.

Assessment developmental toxicity

Imidacloprid caused developmental toxicity only at dose levels toxic to the dams. The developmental effects seen with Imidacloprid are related to maternal toxicity.
Cyfluthrin caused developmental toxicity only at dose levels toxic to the dams. The developmental effects seen with Cyfluthrin are related to maternal toxicity.

Further information

Acute toxicity studies have been bridged from a similar formulation(s). The non-acute information pertains to the active ingredient(s).

12. ECOLOGICAL INFORMATION

Toxicity to fish:
LC50 (Oncorhynchus mykiss (rainbow trout)) 0.00047 mg/l, Exposure time: 96 h
The value mentioned relates to the active ingredient cyfluthrin.
LC50 (Oncorhynchus mykiss (rainbow trout)) 211 mg/l, Exposure time: 96 h
The value mentioned relates to the active ingredient imidacloprid.

Toxicity to aquatic invertebrates:
EC50 (Daphnia magna (Water flea)) 0.00016 mg/l, Exposure time: 48 h
The value mentioned relates to the active ingredient cyfluthrin.
EC50 (Daphnia magna (Water flea)) 85 mg/l, Exposure time: 48 h
The value mentioned relates to the active ingredient imidacloprid.
LC50 (Chironomus riparius (non-biting midge)) 0.0552 mg/l
Exposure time: 24 h
The value mentioned relates to the active ingredient imidacloprid.

Toxicity to aquatic plants . . . . IC50 (Desmodesmus subspicatus) > 10 mg/l
Growth rate;
Exposure time: 72 h
The value mentioned relates to the active ingredient cyfluthrin.

EC50 (Desmodesmus subspicatus) > 10 mg/l
Growth rate;
Exposure time: 72 h
The value mentioned relates to the active ingredient imidacloprid.

Biodegradability . . . . . . : Cyfluthrin: not rapidly biodegradable
Imidacloprid: not rapidly biodegradable

Koc . . . . . . . . . . . . . . . . . . . . . : Cyfluthrin: Koc: 64300
Imidacloprid: Koc: 225

Bioaccumulation . . . . . . : Cyfluthrin:
Bioconcentration factor (BCF) 506; Does not bioaccumulate.
Imidacloprid:
Does not bioaccumulate.

Mobility in soil . . . . . . : Cyfluthrin: Immobile in soil
Imidacloprid:
Moderately mobile in soils

Environmental precautions . . . . . . : Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark.
Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water.
Do not apply when weather conditions favor runoff or drift.
Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent sites.
Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.
Apply this product as specified on the label.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods
Product . . . . . . . . . . . . . . . . : Pesticide, spray mixture or rinse water that cannot be used according to label instructions may be disposed of on site or at an approved waste disposal facility.

Contaminated packaging . . . . : Do not re-use empty containers.
Triple rinse containers.
Rinsed packaging may be acceptable for landfill, otherwise incineration will be required in accordance with local regulations.
If burned, stay out of smoke.

RCRA Information . . . . . . : Characterization and proper disposal of this material as a special or hazardous waste is dependent upon Federal, State and local laws and are the user's responsibility. RCRA classification may apply.

14. TRANSPORT INFORMATION

49CFR . . . . . . . . . . . . . . . . . . . . . : Not dangerous goods / not hazardous material

IMDG
UN number . . . . . . . : 3082
Class . . . . . . . . . . . . . : 9
Packaging group . . . . . . : III
Marine pollutant . . . . . : YES

Proper shipping name . . . . . . : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CYFLUTHRIN, IMIDACLOPRID SOLUTION)

IATA
UN number . . . . . . . : 3082
Class . . . . . . . . . . . . . : 9
Packaging group . . . . . . : III
Environmental
Hazardous Mark . . . . . . : YES

Proper shipping name . . . . . . : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CYFLUTHRIN, IMIDACLOPRID SOLUTION )
This transportation information is not intended to convey all specific regulatory information relating to this product. It does not address regulatory variations due to package size or special transportation requirements.

Freight Classification . . . . : INSECTICIDES OR FUNGICIDES, N.O.I., OTHER THAN POISON
SAFETY DATA SHEET

DISCUS® L

EPA Registration Number: 59807-18

15. REGULATORY INFORMATION

EPA Registration No. . . . . . . : 59807-18

US Federal Regulations

TSCA list
Glycerine 56-81-5

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)
None.

SARA Title III - Section 302 - Notification and Information
None.

SARA Title III - Section 313 - Toxic Chemical Release Reporting
Cyfluthrin 68359-37-5 25,000 lbs

US States Regulatory Reporting

CA Prop65
This product does not contain any substances known to the State of California to cause cancer.
This product does not contain any substances known to the State of California to cause reproductive harm.

US State Right-To-Know Ingredients
Cyfluthrin 68359-37-5 NJ, RI
Glycerine 56-81-5 MN

Canadian Regulations

Canadian Domestic Substance List
Glycerine 56-81-5

Environmental

CERCLA
None.

Clean Water Section 307 Priority Pollutants
None.

Safe Drinking Water Act Maximum Contaminant Levels
None.

International Regulations

European Inventory of Existing Commercial Substances (EINECS)
Glycerine 56-81-5

EPA/FIFRA Information

This chemical is a pesticide product registered by the 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, and for workplace labels of non-pesticide chemicals. Following is the hazard information required on the pesticide label:

Signal word . . . . . . . . : Caution!

Hazard statements . . . . . . : Moderate eye irritation.
Harmful if swallowed, inhaled or absorbed through the skin.
Avoid contact with skin, eyes and clothing.
Avoid inhalation of vapour or mist.
Wash thoroughly with soap and water after handling.
Remove and wash contaminated clothing before re-use.

16. OTHER INFORMATION

NFPA 704 (National Fire Protection Association):

Health - 1 Flammability - 1 Instability - 0 Others - none


Health - 1 Flammability - 1 Physical Hazard - 0
0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

Reason for Revision . . . . . . : Revised according to the current OSHA Hazard Communication Standard (29CFR1910.1200)

Revision Date . . . . . . . . : 03/29/2017

This information is provided in good faith but without express or implied warranty. The customer assumes all responsibility for safety and use not in accordance with label instructions.

Discus is a registered trademark of OHP, Inc.