SECTION 1. IDENTIFICATION

Product name: Diflubenzuron Formulation
Other means of identification: Magnum (A007704)

Manufacturer or supplier’s details
Company name of supplier: Merck & Co., Inc
Address: 126 E. Lincoln Avenue
Rahway, New Jersey U.S.A. 07065
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 OSHA Hazard Communication Standard (29 CFR 1910.1200)
Serious eye damage: Category 1
Specific target organ toxicity - repeated exposure: Category 2 (Blood, spleen, Liver)

GHS label elements
Hazard pictograms: 

Signal Word: Danger

Hazard Statements: H318 Causes serious eye damage.
H373 May cause damage to organs (Blood, spleen, Liver) through prolonged or repeated exposure.

Precautionary Statements: Prevention:
P260 Do not breathe mist or vapors.
P280 Wear eye protection and face protection.

Response:
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER.
P314 Get medical attention if you feel unwell.

Disposal:
SAFETY DATA SHEET
according to the OSHA Hazard Communication Standard

Diflubenzuron Formulation

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Substance / Mixture</th>
<th>Components</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Chemical name</td>
</tr>
<tr>
<td></td>
<td>Propylene glycol</td>
</tr>
<tr>
<td></td>
<td>Nonylphenol, ethoxylated</td>
</tr>
<tr>
<td></td>
<td>N-[[4-chlorophenyl]amino]carbonyl]-2,6-difluorobenzamide</td>
</tr>
</tbody>
</table>

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. Get medical attention if symptoms occur.

In case of skin contact: In case of contact, immediately flush skin with soap and plenty of water. Get medical attention if symptoms occur.

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 immediately.

If swallowed: If swallowed, DO NOT induce vomiting. Get medical attention if symptoms occur. Rinse mouth thoroughly with water.

Most important symptoms and effects, both acute and delayed: Causes serious eye damage. May cause damage to organs through prolonged or repeated exposure.

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


Unsuitable extinguishing media: None known.

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

Other hazards: None known.
SAFETY DATA SHEET
according to the OSHA Hazard Communication Standard

Diflubenzuron Formulation

Specific hazards during firefighting: Exposure to combustion products may be a hazard to health.

Hazardous combustion products: Carbon oxides, Chlorine compounds, Nitrogen oxides (NOx), Fluorine compounds, Metal oxides, Phosphorus compounds.

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

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: Use only with adequate ventilation.

Advice on safe handling: Do not breathe mist or vapors. Do not swallow.
Do not get in eyes. Avoid prolonged or repeated contact with skin. Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment. Keep container tightly closed. Take care to prevent spills, waste and minimize release to the environment.

**Conditions for safe storage**: Keep in properly labeled containers. Keep tightly closed. Store in accordance with the particular national regulations.

**Materials to avoid**: Do not store with the following product types: Strong oxidizing agents, 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>Propylene glycol</td>
<td>57-55-6</td>
<td>TWA</td>
<td>10 mg/m³</td>
<td>US WEEL</td>
</tr>
<tr>
<td>N-[[4-chlorophenyl]amino]carbonyl]-2,6-difluorobenzamide</td>
<td>35367-38-5</td>
<td>TWA</td>
<td>100 µg/m³ (OEB 2)</td>
<td>Internal</td>
</tr>
</tbody>
</table>

**Engineering measures**: Use appropriate engineering controls and manufacturing technologies to control airborne concentrations (e.g., drip-less quick connections). All engineering controls should be implemented by facility design and operated in accordance with GMP principles to protect products, workers, and the environment. Containment technologies suitable for controlling compounds are required to control at source and to prevent migration of the compound to uncontrolled areas (e.g., open-face containment devices). Minimize open handling.

**Personal protective equipment**

**Respiratory protection**: General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

**Hand protection**
Diflubenzuron Formulation

Material: Chemical-resistant gloves
Remarks: Consider double gloving.

Eye 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.

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.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Aqueous solution, suspension</td>
</tr>
<tr>
<td>Color</td>
<td>No data available</td>
</tr>
<tr>
<td>Odor</td>
<td>No data available</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>No data available</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>
</tbody>
</table>
SAFETY DATA SHEET
according to the OSHA Hazard Communication Standard

Diflubenzuron Formulation

Version: 2.2   Revision Date: 11/22/2023   SDS Number: 10808116-00005   Date of last issue: 09/30/2023   Date of first issue: 07/05/2022

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: No data available
Solubility(ies)
   Water solubility: No data available
Partition coefficient: n-octanol/water: Not applicable
Autoignition temperature: No data available
Decomposition temperature: No data available
Viscosity
   Viscosity, kinematic: No data available
Explosive properties: Not explosive
Oxidizing properties: The substance or mixture is not classified as oxidizing.
Molecular weight: No data available
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: Can react with strong oxidizing agents.
Conditions to avoid: None known.
Incompatible materials: Oxidizing agents
Hazardous decomposition products: No hazardous decomposition products are known.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure
Inhalation
Skin contact
Ingestion
Eye contact
**SAFETY DATA SHEET**
according to the OSHA Hazard Communication Standard

**Diflubenzuron Formulation**

**Version**: 2.2  
**Revision Date**: 11/22/2023  
**SDS Number**: 10808116-00005  
**Date of last issue**: 09/30/2023  
**Date of first issue**: 07/05/2022

---

**Acute toxicity**

Not classified based on available information.

**Product:**

**Acute oral toxicity**: Acute toxicity estimate: > 5,000 mg/kg  
Method: Calculation method

**Components:**

**Propylene glycol:**

**Acute oral toxicity**: LD50 (Rat): 22,000 mg/kg

**Acute inhalation toxicity**: LC50 (Rat): > 44.9 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist

**Acute dermal toxicity**: LD50 (Rabbit): > 2,000 mg/kg  
Assessment: The substance or mixture has no acute dermal toxicity

**Nonylphenol, ethoxylated:**

**Acute oral toxicity**: LD50 (Rat): 500 - 2,000 mg/kg

**N-[[(4-chlorophenyl)amino]carbonyl]-2,6-difluorobenzamide:**

**Acute oral toxicity**: LD50 (Rat): 4,640 mg/kg

**Acute inhalation toxicity**: LC50 (Rat): > 2.49 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: OECD Test Guideline 403

**Acute dermal toxicity**: LD50 (Rabbit): > 2,000 mg/kg  
Method: OECD Test Guideline 402

---

**Skin corrosion/irritation**

Not classified based on available information.

**Components:**

**Propylene glycol:**

Species: Rabbit  
Method: OECD Test Guideline 404  
Result: No skin irritation

**Nonylphenol, ethoxylated:**

Species: Rabbit  
Method: OECD Test Guideline 404  
Result: No skin irritation

**N-[[(4-chlorophenyl)amino]carbonyl]-2,6-difluorobenzamide:**
Diflubenzuron Formulation

Species: Rabbit
Method: OECD Test Guideline 404
Result: No skin irritation

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

**Components:**

**Propylene glycol:**
Species: Rabbit
Method: OECD Test Guideline 405
Result: No eye irritation

**Nonylphenol, ethoxylated:**
Species: Rabbit
Method: OECD Test Guideline 405
Result: Irreversible effects on the eye

**N-[[4-chlorophenyl]amino]carbonyl]-2,6-difluorobenzamide:**
Species: Rabbit
Method: OECD Test Guideline 405
Result: No eye irritation

**Respiratory or skin sensitization**

**Skin sensitization**
- Not classified based on available information.

**Respiratory sensitization**
- Not classified based on available information.

**Components:**

**Propylene glycol:**
- Test Type: Maximization Test
- Routes of exposure: Skin contact
- Species: Guinea pig
- Result: negative

**Nonylphenol, ethoxylated:**
- Test Type: Maximization Test
- Routes of exposure: Skin contact
- Species: Guinea pig
- Result: negative
- Remarks: Based on data from similar materials

**N-[[4-chlorophenyl]amino]carbonyl]-2,6-difluorobenzamide:**
- Test Type: Buehler Test
- Routes of exposure: Skin contact
- Species: Guinea pig
SAFETY DATA SHEET
according to the OSHA Hazard Communication Standard

Diflubenzuron Formulation

Method: OECD Test Guideline 406
Result: negative

Germ cell mutagenicity
Not classified based on available information.

Components:

Propylene glycol:
Genotoxicity in vitro: Test Type: Bacterial reverse mutation assay (AMES)
Result: negative
Test Type: Chromosome aberration test in vitro
Method: OECD Test Guideline 473
Result: negative

Genotoxicity in vivo: Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Species: Mouse
Application Route: Intraperitoneal injection
Result: negative

Nonylphenol, ethoxylated:
Genotoxicity in vitro: Test Type: Bacterial reverse mutation assay (AMES)
Result: negative
Remarks: Based on data from similar materials

N-[[4-chlorophenyl]amino]carbonyl]-2,6-difluorobenzamide:
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

Genotoxicity in vivo: Test Type: Rodent dominant lethal test (germ cell) (in vivo)
Species: Mouse
Application Route: Intraperitoneal injection
Result: negative

Carcinogenicity
Not classified based on available information.

Components:

Propylene glycol:
Species: Rat
Application Route: Ingestion
Exposure time: 2 Years
Result: negative
SAFETY DATA SHEET
according to the OSHA Hazard Communication Standard

Diflubenzuron Formulation

Version 2.2  Revision Date: 11/22/2023  SDS Number: 10808116-00005  Date of last issue: 09/30/2023  Date of first issue: 07/05/2022

N-[(4-chlorophenyl)amino]carbonyl]-2,6-difluorobenzamide:

<table>
<thead>
<tr>
<th>Species</th>
<th>Rat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application Route</td>
<td>Ingestion</td>
</tr>
<tr>
<td>Exposure time</td>
<td>104 weeks</td>
</tr>
<tr>
<td>Result</td>
<td>negative</td>
</tr>
</tbody>
</table>

IARC  No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA  No component of this product present at levels greater than or equal to 0.1% is on OSHA’s list of regulated carcinogens.

NTP  No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Not classified based on available information.

Components:

Propylene glycol:

Effects on fertility  Test Type: Two-generation reproduction toxicity study
Species: Mouse      
Application Route: Ingestion
Result: negative

Effects on fetal development  Test Type: Embryo-fetal development
Species: Mouse      
Application Route: Ingestion
Result: negative

N-[(4-chlorophenyl)amino]carbonyl]-2,6-difluorobenzamide:

Effects on fertility  Test Type: Two-generation reproduction toxicity study
Species: Rat      
Application Route: Ingestion
Result: negative

Effects on fetal development  Test Type: Embryo-fetal development
Species: Rabbit      
Application Route: Ingestion
Result: negative

STOT-single exposure

Not classified based on available information.

STOT-repeated exposure

May cause damage to organs (Blood, spleen, Liver) through prolonged or repeated exposure.

Components:

N-[(4-chlorophenyl)amino]carbonyl]-2,6-difluorobenzamide:

Routes of exposure  Ingestion
Diflubenzuron Formulation

Target Organs: Blood, spleen, Liver
Assessment: Shown to produce significant health effects in animals at concentrations of >10 to 100 mg/kg bw.

Routes of exposure: inhalation (dust/mist/fume)
Target Organs: Blood, spleen, Liver
Assessment: Shown to produce significant health effects in animals at concentrations of >0.02 to 0.2 mg/l/6h/d.

Routes of exposure: Skin contact
Target Organs: Blood, spleen, Liver
Assessment: Shown to produce significant health effects in animals at concentrations of >20 to 200 mg/kg bw.

Repeated dose toxicity

Components:

Propylene glycol:
- Species: Rat, male
- NOAEL: >= 1,700 mg/kg
- Application Route: Ingestion
- Exposure time: 2 y

N-[[4-chlorophenyl]amino]carbonyl]-2,6-difluorobenzamide:
- Species: Rat
- LOAEL: 81 mg/kg
- Application Route: Ingestion
- Exposure time: 28 Days

Species: Rabbit
- NOAEL: > 322 mg/kg
- Application Route: Skin contact
- Exposure time: 28 Days

Species: Rat
- NOAEL: > 0.1 mg/l
- Application Route: inhalation (dust/mist/fume)
- Exposure time: 28 Days

Aspiration toxicity
- Not classified based on available information.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

Propylene glycol:
- Toxicity to fish: LC50 (Oncorhynchus mykiss (rainbow trout)): 40,613 mg/l
  Exposure time: 96 h
Diflubenzuron Formulation

Toxicity to daphnia and other aquatic invertebrates: EC50 (Ceriodaphnia dubia (water flea)): 18,340 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants: ErC50 (Skeletonema costatum (marine diatom)): 19,300 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity): NOEC (Ceriodaphnia dubia (water flea)): 13,020 mg/l
Exposure time: 7 d

Toxicity to microorganisms: NOEC (Pseudomonas putida): > 20,000 mg/l
Exposure time: 18 h

Nonylphenol, ethoxylated:

Toxicity to fish: LC50 (Pimephales promelas (fathead minnow)): > 0.1 - 1 mg/l
Exposure time: 96 h
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates: EC50 (Ceriodaphnia dubia (water flea)): > 0.1 - 1 mg/l
Exposure time: 48 h
Remarks: Based on data from similar materials

Toxicity to algae/aquatic plants: ErC50 (Selenastrum capricornutum (green algae)): > 1 - 10 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: Based on data from similar materials

Toxicity to fish (Chronic toxicity): NOEC (Oryzias latipes (Japanese medaka)): > 0.1 - 1 mg/l
Exposure time: 100 d
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity): NOEC (Mysidopsis bahia (opossum shrimp)): > 0.001 - 0.01 mg/l
Exposure time: 28 d
Remarks: Based on data from similar materials

N-[(4-chlorophenyl)amino]carbonyl]-2,6-difluorobenzamide:

Toxicity to fish: LC50 (Cyprinodon variegatus (sheepshead minnow)): > 0.13 mg/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)): 0.0026 mg/l
Exposure time: 48 h
SAFETY DATA SHEET
according to the OSHA Hazard Communication Standard

Diflubenzuron Formulation

Version 2.2 | Revision Date: 11/22/2023 | SDS Number: 1080816-00005 | Date of last issue: 09/30/2023
Date of first issue: 07/05/2022

Toxicity to algae/aquatic plants:
- EC50 (Selenastrum capricornutum (green algae)): > 0.2 mg/l
  - Exposure time: 72 h
  - Remarks: No toxicity at the limit of solubility.

Toxicity to fish (Chronic toxicity):
- NOEC (Oncorhynchus mykiss (rainbow trout)): 0.2 mg/l
  - Exposure time: 21 d

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity):
- NOEC (Daphnia magna (Water flea)): 0.00004 mg/l
  - Exposure time: 21 d

Persistence and degradability

Components:

Propylene glycol:
- Biodegradability: Result: Readily biodegradable.
  - Biodegradation: 98.3%
  - Exposure time: 28 d
  - Method: OECD Test Guideline 301F

Nonylphenol, ethoxylated:
- Biodegradability: Result: Not readily biodegradable.
  - Remarks: Based on data from similar materials

N-[[4-chlorophenyl]amino]carbonyl]-2,6-difluorobenzamide:
- Biodegradability: Result: Not readily biodegradable.
  - Method: OECD Test Guideline 301

Bioaccumulative potential

Components:

Propylene glycol:
- Partition coefficient: n-octanol/water: log Pow: -1.07

Nonylphenol, ethoxylated:
- Partition coefficient: n-octanol/water: log Pow: 4.48

N-[[4-chlorophenyl]amino]carbonyl]-2,6-difluorobenzamide:
- Bioaccumulation: Bioconcentration factor (BCF): 320
- Partition coefficient: n-octanol/water: log Pow: 3.89

Mobility in soil
No data available

Other adverse effects
No data available
SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods
Waste from residues : Dispose of in accordance with local regulations. Do not dispose of waste into sewer.
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.
(N-[(4-chlorophenyl)amino]carbonyl]-2,6-difluorobenzamide)
Class : 9
Packing group : III
Labels : 9
Environmentally hazardous : yes

IATA-DGR
UN/ID No. : UN 3082
Proper shipping name : Environmentally hazardous substance, liquid, n.o.s.
(N-[(4-chlorophenyl)amino]carbonyl]-2,6-difluorobenzamide)
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.
(N-[(4-chlorophenyl)amino]carbonyl]-2,6-difluorobenzamide)
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

49 CFR
UN/ID/NA number : UN 3082
Proper shipping name : Environmentally hazardous substance, liquid, n.o.s.
SAFETY DATA SHEET
according to the OSHA Hazard Communication Standard

Diflubenzuron Formulation

Version: 2.2
Revision Date: 11/22/2023
SDS Number: 10808116-00005
Date of last issue: 09/30/2023
Date of first issue: 07/05/2022

Class: 9
Packing group: III
Labels: CLASS 9
ERG Code: 171
Marine pollutant: yes (N-[(4-chlorophenyl)amino]carbonyl)-2,6-difluorobenzamide)

Remarks: Above applies only to containers over 119 gallons or 450 liters. Shipment by ground under DOT is non-regulated; however it may be shipped per the applicable hazard classification to facilitate multi-modal transport involving ICAO (IATA) or IMO.

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

CERCLA Reportable Quantity
Listed substances in the product are at low enough levels to not be expected to exceed the RQ

SARA 304 Extremely Hazardous Substances Reportable Quantity
This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity
This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards:
- Specific target organ toxicity (single or repeated exposure)
- Serious eye damage or eye irritation

SARA 313:
The following components are subject to reporting levels established by SARA Title III, Section 313:

<table>
<thead>
<tr>
<th>Component</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nonylphenol, ethoxylated</td>
<td>3%</td>
</tr>
<tr>
<td>N-[(4-chlorophenyl)amino]carbonyl]-2,6-difluorobenzamide</td>
<td>2.5%</td>
</tr>
</tbody>
</table>

US State Regulations
Pennsylvania Right To Know
- Water: 7732-18-5
- Propylene glycol: 57-55-6
- Nonylphenol, ethoxylated: 9016-45-9
SAFETY DATA SHEET
going according to the OSHA Hazard Communication Standard

Diflubenzuron Formulation

Version 2.2  Revision Date: 11/22/2023  SDS Number: 10808116-00005  Date of last issue: 09/30/2023  Date of first issue: 07/05/2022

Disodium hydrogenorthophosphate  7558-79-4

California List of Hazardous Substances
Disodium hydrogenorthophosphate  7558-79-4

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

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

SECTION 16. OTHER INFORMATION

Further information

NFPA 704:

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Instability</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

HMIS® IV:

<table>
<thead>
<tr>
<th>HEALTH</th>
<th>*</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLAMMABILITY</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>PHYSICAL HAZARD</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "" represents the absence of a chronic hazard.

Full text of other abbreviations

US WEEL  : USA. Workplace Environmental Exposure Levels (WEEL)
US WEEL / TWA  : 8-hr TWA

AIIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; 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; HMIS - Hazardous Materials Identification System; 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 Organiza-
SAFETY DATA SHEET
according to the OSHA Hazard Communication Standard

Diflubenzuron Formulation

Version 2.2  Revision Date: 11/22/2023  SDS Number: 10808116-00005  Date of last issue: 09/30/2023
Date of first issue: 07/05/2022

Sources of key data used to compile the Material Safety Data Sheet:

Revision Date: 11/22/2023

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.

US / Z8