1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name: DISARM 480SC FUNGICIDE

Other means of identification

Product Code(s): 7689-1-A

Synonyms: FLUOXASTROBIN: (E)-(2-[6-(2-chlorophenoxy)-5-fluoropyrimidin-4-yloxy]phenyl)
(5,6-dihydro-1,4,2-dioxazin-3-yl)methanone O-methyloxime (IUPAC name);
(1E)-(2-[6-(2-chlorophenoxy)-5-fluoro-4-pyrimidinyl]oxy)phenyl}(5,6-dihydro-1,4,2-dioxazin-3-yl)methanone O-methyloxime (CAS name)

Active Ingredient(s): Fluoxastrobion

Chemical Family: Strobiluron

PCP #: 31857

Recommended use of the chemical and restrictions on use

Recommended Use: Fungicide

Restrictions on Use: Use as recommended by the label.

Supplier Address: FMC Corporation
2929 Walnut Street
Philadelphia, PA 19104
800 / 321-1FMC (1362) (General Information)
SDS-info@fmc.com (E-Mail General Information)

Emergency telephone number

Medical Emergencies:
1 800 / 331-3148 (U.S.A. & Canada)
1 651 / 632-6793 (All Other Countries - Collect)
For leak, fire, spill, or accident emergencies, call:
1 800 / 424-9300 (CHEMTREC - U.S.A. & Canada)
1 703 / 527 3887 (CHEMTREC - All Other Countries - Collect)

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity - Inhalation (Dusts/Mists)</td>
<td>4</td>
</tr>
<tr>
<td>Skin sensitization</td>
<td>1</td>
</tr>
<tr>
<td>Specific target organ toxicity (repeated exposure)</td>
<td>1</td>
</tr>
<tr>
<td>Acute aquatic toxicity</td>
<td>1</td>
</tr>
</tbody>
</table>
GHS Label elements, including precautionary statements

EMERGENCY OVERVIEW

**Danger**

**Hazard Statements**
H332 - Harmful if inhaled
H317 - May cause an allergic skin reaction
H372 - Causes damage to organs through prolonged or repeated exposure
H400 - Very toxic to aquatic life

**Precautionary Statements - Prevention**
P260 - Do not breathe dust/fume/gas/mist/vapors/spray
P264 - Wash hands thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P271 - Use only outdoors or in a well-ventilated area
P272 - Contaminated work clothing should not be allowed out of the workplace
P273 - Avoid release to the environment
P280 - Wear protective gloves/protective clothing/eye protection/face protection

**Precautionary Statements - Response**
P302 + P350 - IF ON SKIN: Gently wash with plenty of soap and water
P314 - Get medical advice/attention if you feel unwell
P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention
P391 - Collect spillage

**Precautionary Statements - Disposal**
P501 - Dispose of contents/container according to label directions

**Hazards not otherwise classified (HNOC)**
No hazards not otherwise classified were identified.

**Other Information**
May be harmful in contact with skin.

---

3. COMPOSITION/INFORMATION ON INGREDIENTS

**Chemical Family**
Strobiluron.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluoazastrobin</td>
<td>361377-29-9</td>
<td>40.3</td>
</tr>
<tr>
<td>Propylene glycol</td>
<td>57-55-6</td>
<td>1-5</td>
</tr>
</tbody>
</table>

Synonyms are provided in Section 1.

---

4. FIRST AID MEASURES

**Eye Contact**
Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for further treatment advice.
Skin Contact: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for further treatment advice.

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 poison control center or doctor for further treatment advice.

Ingestion: Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed: Possible systemic effects through repeated exposure. If inhaled, may cause irritation to the nose, throat, and upper respiratory tract. Symptoms may include coughing and sneezing. Skin contact may cause irritation and allergic reactions.

Indication of immediate medical attention and special treatment needed, if necessary: Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Water spray, Foam, Dry powder, Carbon dioxide (CO₂), Sand.

Specific Hazards Arising from the Chemical: Not flammable

Hazardous Combustion Products: In the event of fire, the formation of hydrogen chloride, hydrogen cyanide, hydrogen fluoride, carbon monoxide, and nitrogen oxide must be anticipated.

Explosion data:

Sensitivity to Mechanical Impact: No information available.

Sensitivity to Static Discharge: No information available.

Protective equipment and precautions for firefighters: As in any fire, wear self-contained breathing apparatus and full protective gear. Prevent runoff from fire control from entering streams, sewers, or drinking water supply.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Isolate and post spill area. Remove all sources of ignition. Wear suitable protective clothing, gloves and eye/face protection. For personal protection see section 8.

Other: For further clean-up instructions, call FMC Emergency Hotline number listed in Section 1 “Product and Company Identification” above.

Environmental Precautions: Keep people and animals away from and upwind of spill/leak.

Methods for Containment: Dike to prevent runoff. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

Methods for cleaning up: Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. To clean the floor and all objects contaminated by this material, use damp cloth. Place used cleaning materials into closed receptacles.

7. HANDLING AND STORAGE

Handling: Handle in accordance with good industrial hygiene and safety practice. Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal.

Storage: Keep away from open flames, hot surfaces and sources of ignition. Keep in a dry, cool and well-ventilated place. Keep out of reach of children and animals. Keep/store only in original container.
8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>British Columbia</th>
<th>Quebec</th>
<th>Ontario TWAEV</th>
<th>Alberta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propylene glycol</td>
<td>-</td>
<td>-</td>
<td>TWA: 10 mg/m³ aerosol only</td>
<td>-</td>
</tr>
<tr>
<td>(57-55-6)</td>
<td></td>
<td></td>
<td>TWA: 50 ppm aerosol and vapor</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>TWA: 155 mg/m³ aerosol and vapor</td>
<td></td>
</tr>
</tbody>
</table>

Appropriate engineering controls

Engineering measures

Apply technical measures to comply with the occupational exposure limits. When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment.

Individual protection measures, such as personal protective equipment

Eye/Face Protection

If there is a potential for exposure to particles which could cause eye discomfort, wear chemical goggles.

Skin and Body Protection

Wear long-sleeved shirt, long pants, socks, and shoes.

Hand Protection

Rubber/latex/neoprene or other suitable chemical resistant gloves. Use protective gloves made of chemical materials such as nitrile or neoprene. Wash the outside of gloves with soap and water before reuse. Check regularly for leaks.

Respiratory Protection

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Respiratory protection must be provided in accordance with current local regulations.

Hygiene measures

Clean water should be available for washing in case of eye or skin contamination. Remove and wash contaminated clothing before re-use. Wash skin prior to eating, drinking, chewing gum or using tobacco. Shower or bathe at the end of working. Launder work clothing separately from regular household laundry.

General information

If the product is used in mixtures, it is recommended that you contact the appropriate protective equipment suppliers.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Off-white Viscous Liquid</td>
</tr>
<tr>
<td>Physical State</td>
<td>Liquid Suspension</td>
</tr>
<tr>
<td>Color</td>
<td>No information available</td>
</tr>
<tr>
<td>Odor</td>
<td>Paint-like</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No information available</td>
</tr>
<tr>
<td>pH</td>
<td>6.8 (10% solution)</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Boiling Point/Range</td>
<td>No information available</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>No information available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No information available</td>
</tr>
<tr>
<td>Flammability Limit in Air</td>
<td>No information available</td>
</tr>
</tbody>
</table>
10. STABILITY AND REACTIVITY

Reactivity
Not applicable

Chemical Stability
Stable under normal conditions.

Possibility of Hazardous Reactions
None under normal processing.

Hazardous polymerization
Hazardous polymerization does not occur.

Conditions to avoid
Heat, flames and sparks

Incompatible materials
No information available.

Hazardous Decomposition Products
In the event of fire, the formation of hydrogen chloride, hydrogen cyanide, hydrogen fluoride, carbon monoxide, and nitrogen oxide must be anticipated.

11. TOXICOLOGICAL INFORMATION

Product Information

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>LD50 Oral</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation (vapor)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluoxastrobin (361377-29-9)</td>
<td>&gt; 2000 mg/kg ( Rat )</td>
<td>&gt; 2000 mg/kg ( Rat )</td>
<td>= 4.9 mg/L ( Rat ) 4 h</td>
</tr>
<tr>
<td>Propylene glycol (57-55-6)</td>
<td>20000 mg/kg ( Rat )</td>
<td>20800 mg/kg ( Rabbit )</td>
<td></td>
</tr>
</tbody>
</table>

Information on toxicological effects

Symptoms
No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic toxicity
Fluoxastrobin showed reduced body weight and hepatocytomegaly and cytoplasmic changes associated with increased serum liver alkaline phosphatase indicative of cholestasis.
Mutagenicity
Fluoxastrobin, Not genotoxic in animal studies.

Carcinogenicity
Fluoxastrobin: Not carcinogenic

Neurological effects
Fluoxastrobin: No neurotoxicity observed in animal studies.

Reproductive toxicity
Fluoxastrobin: In the reproduction study, there was evidence of decreased body weight in offspring, delayed preputial separation, and incomplete ossification.

Developmental toxicity
Fluoxastrobin: Evidence of transient body weight loss and decreased food consumption.

STOT - single exposure
No information available.

STOT - repeated exposure
No information available.

Neurological effects
Fluoxastrobin: No neurotoxicity observed in animal studies.

Aspiration hazard
No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity
Very toxic to aquatic life. May cause long lasting harmful effects to aquatic life.

<table>
<thead>
<tr>
<th>Fluoxastrobin (361377-29-9)</th>
<th>Active Ingredient(s)</th>
<th>Duration</th>
<th>Species</th>
<th>Value</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>96 h LC50</td>
<td>M. bahia</td>
<td>0.053</td>
<td>mg/L</td>
<td></td>
</tr>
<tr>
<td></td>
<td>48 h EC50</td>
<td>Daphnia</td>
<td>0.48</td>
<td>mg/L</td>
<td></td>
</tr>
<tr>
<td></td>
<td>96 h LC50</td>
<td>Cyprinus carpio</td>
<td>0.57</td>
<td>mg/L</td>
<td></td>
</tr>
<tr>
<td></td>
<td>96 h LC50</td>
<td>Lepomis macrochirus (Bluegill sunfish)</td>
<td>0.97</td>
<td>mg/L</td>
<td></td>
</tr>
</tbody>
</table>

Chemical name

<table>
<thead>
<tr>
<th>Sodium Hydroxide 1310-73-2</th>
<th>Toxicity to algae</th>
<th>Toxicity to fish</th>
<th>Toxicity to daphnia and other aquatic invertebrates</th>
</tr>
</thead>
<tbody>
<tr>
<td>24 h EC50: &gt; 500 mg/L (Daphnia magna)</td>
<td>96 h LC50: = 45.4 mg/L (Oncorhynchus mykiss) static</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fluoxastrobin 361377-29-9</th>
<th>72-hour EC50: 0.45 mg/L (Selenastrum capricornutum)(biomass)</th>
<th>96 hr LC50: 0.435 mg/L (Oncorhynchus mykiss) static</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>96 hr LC50: 0.57 mg/L (Cyprinus carpio) static</td>
<td></td>
</tr>
<tr>
<td></td>
<td>96 hr LC50: 0.97 mg/L (Lepomis macrochirus)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Glycerin 56-81-5</th>
<th>Toxicity to algae</th>
<th>Toxicity to fish</th>
<th>Toxicity to daphnia and other aquatic invertebrates</th>
</tr>
</thead>
<tbody>
<tr>
<td>24 h EC50: &gt; 500 mg/L (Daphnia magna)</td>
<td>96 h LC50: 51 - 57 mL/L (Oncorhynchus mykiss) static</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Propylene glycol 57-55-6</th>
<th>96 h EC50: = 19000 mg/L (Pseudokirchneriella subcapitata)</th>
<th>96 h LC50: = 41 - 47 mL/L (Oncorhynchus mykiss) static</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>96 h LC50: = 51400 mg/L (Cyprinus carpio) static</td>
<td></td>
</tr>
<tr>
<td></td>
<td>96 h LC50: = 710 mg/L (Pimephales promelas) static</td>
<td></td>
</tr>
<tr>
<td></td>
<td>48 h EC50: &gt; 1000 mg/L (Daphnia magna) Static 24 h EC50: &gt; 10000 mg/L (Daphnia magna)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Methyl ethyl ketone 78-93-3</th>
<th>96 h LC50: 3130 - 3320 mg/L (Pimephales promelas) flow-through</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>48 h EC50: 4025 - 6440 mg/L (Daphnia magna) Static 48 h EC50: = 5091 mg/L (Daphnia magna) 48 h EC50: &gt; 520 mg/L (Daphnia magna)</td>
</tr>
</tbody>
</table>

Persistence and degradability
Fluoxastrobin: Half-life is 29 to 393 days depending on soil type.

Bioaccumulation
Fluoxastrobin: Material may have some potential to bioaccumulate.

Mobility
Fluoxastrobin: Low mobility in soil.

13. DISPOSAL CONSIDERATIONS

Waste disposal methods
Improper disposal of excess pesticide, spray mixture, or rinsate is prohibited. If these wastes cannot be disposed of by use according to label instructions, contact appropriate disposal authorities for guidance. Proper personal protective equipment, as described in Sections 7 and 8, must be worn while handling materials for waste disposal.

Contaminated containers and
Containers must be disposed of in accordance with local, state and federal regulations.
packages
Refer to the product label for container disposal instructions. Do not re-use empty containers.

14. TRANSPORT INFORMATION

NOTE
This product is only regulated when shipped by water or in bulk packaging.

DOT
NOT REGULATED

<table>
<thead>
<tr>
<th>Packaging Type</th>
<th>Bulk</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN/ID no</td>
<td>UN3082</td>
</tr>
<tr>
<td>Proper Shipping Name</td>
<td>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.</td>
</tr>
<tr>
<td>Hazard class</td>
<td>9</td>
</tr>
<tr>
<td>Packing Group</td>
<td>III</td>
</tr>
<tr>
<td>Marine Pollutant</td>
<td>Fluoxastrobin</td>
</tr>
<tr>
<td>Description</td>
<td>UN3082. Environmentally hazardous substances, liquid, n.o.s. (Fluoxastrobin), 9, III, Marine Pollutant</td>
</tr>
</tbody>
</table>

TDG
Not regulated

<table>
<thead>
<tr>
<th>UN/ID no</th>
<th>UN3082</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper Shipping Name</td>
<td>Environmentally hazardous substance, liquid, n.o.s. (Fluoxastrobin)</td>
</tr>
<tr>
<td>Hazard class</td>
<td>9</td>
</tr>
<tr>
<td>Packing Group</td>
<td>III</td>
</tr>
<tr>
<td>Description</td>
<td>UN3082. Environmentally hazardous substances, liquid, n.o.s. (Fluoxastrobin), 9, III, Marine Pollutant</td>
</tr>
<tr>
<td>UN/ID no</td>
<td>UN3082</td>
</tr>
<tr>
<td>Proper Shipping Name</td>
<td>Environmentally hazardous substance, liquid, n.o.s. (Fluoxastrobin)</td>
</tr>
<tr>
<td>Hazard class</td>
<td>9</td>
</tr>
<tr>
<td>Packing Group</td>
<td>III</td>
</tr>
<tr>
<td>Marine Pollutant</td>
<td>Yes</td>
</tr>
<tr>
<td>Description</td>
<td>UN3082. Environmentally hazardous substances, liquid, n.o.s. (Fluoxastrobin), 9, III, Marine Pollutant</td>
</tr>
</tbody>
</table>

15. REGULATORY INFORMATION

U.S. Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

<table>
<thead>
<tr>
<th>Hazard Category</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute health hazard</td>
<td></td>
</tr>
<tr>
<td>Chronic health hazard</td>
<td>Yes</td>
</tr>
<tr>
<td>Fire hazard</td>
<td>No</td>
</tr>
<tr>
<td>Sudden release of pressure hazard</td>
<td>No</td>
</tr>
<tr>
<td>Reactive Hazard</td>
<td>No</td>
</tr>
</tbody>
</table>

Clean Water Act
This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42):

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CWA - Reportable Quantities</th>
<th>CWA - Toxic Pollutants</th>
<th>CWA - Priority Pollutants</th>
<th>CWA - Hazardous Substances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide</td>
<td>1310-73-2</td>
<td>1000 lb</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

CERCLA
This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):
DISARM 480SC FUNGICIDE

Chemical name | Hazardous Substances RQs | Extremely Hazardous Substances RQs
---|---|---
Sodium Hydroxide 1310-73-2 | 1000 lb | 
Methyl ethyl ketone 78-93-3 | 5000 lb | 2270 kg

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 as required on the pesticide label:

PRECAUCIÓN:
El contacto prolongado o repetido con la piel puede causar reacciones alérgicas en algunas personas. Este pesticida es tóxico para peces e invertibrados acuáticos.

US State Regulations
California Proposition 65
This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>New Jersey</th>
<th>Massachusetts</th>
<th>Pennsylvania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propylene glycol 57-55-6</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

International Inventories

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>TSCA (United States)</th>
<th>DSL (Canada)</th>
<th>EINECS/ELINC S (Europe)</th>
<th>ENCS (Japan)</th>
<th>China (IECSC)</th>
<th>KECL (Korea)</th>
<th>PICCS (Philippines)</th>
<th>AICS (Australia)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propylene glycol 57-55-6</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

CANADA
This Safety Data Sheet is for a pesticide product registered by the Pest Management Regulatory Agency (PMRA), and is therefore also subject to certain requirements under Canadian pesticide laws, including the Pest Control Products Act (PCPA). These requirements differ from the classification criteria and hazard information required by the Hazardous Product Regulations (HPR) and WHMIS 2015 for safety data sheets, and for workplace labels of non-pesticide chemicals. The following information is determined by PMRA.

The approved pest control product label (the label), under the Pest Control Products Act, needs to be followed at all times and in cases where there are any discrepancies between the approved label and an SDS for that product it is the label information that prevails.

16. OTHER INFORMATION

NFPA
Health Hazards 1 | Flammability 0 | Instability 0 | Special Hazards -
HMIS
Health Hazards 1 | Flammability 0 | Physical hazard 0 | Personal Protection X

NFPA/HMIS Ratings Legend
Severe = 4; Serious = 3; Moderate = 2; Slight = 1; Minimal = 0

Revision date: 2020-01-10
Reason for revision: SDS sections updated
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 given is designed only as a guidance for safe handling, use, processing, storage,
transportation, disposal and release and is not to be considered a warranty or quality specification. The information
relates only to the specific material designated and may not be valid for such material used in combination with any other
materials or in any process, unless specified in the text.

Prepared By:

FMC Corporation

FMC Logo - Trademark of FMC Corporation

© 2020 FMC Corporation. All Rights Reserved.

End of Safety Data Sheet