

**SAFETY DATA SHEET**  
**DISARM TURF FUNGICIDE**

**SDS # :** 7689-A  
**Revision date:** 2015-05-27  
**Format:** NA  
**Version** 1



**1. PRODUCT AND COMPANY IDENTIFICATION**

**Product Identifier**

**Product Name** DISARM TURF FUNGICIDE

**Other means of identification**

**Product Code(s)** 7689-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)** Fluoxastrobin

**Chemical Family** Strobiluron fungicide

**Recommended use of the chemical and restrictions on use**

**Recommended Use:** Fungicide

**Restrictions on Use:** Use as recommended by the label

**Manufacturer Address**

FMC Corporation  
1735 Market Street  
Philadelphia, PA 19103  
(215) 299-6000 (General Information)  
msdsinfo@fmc.com (E-Mail General Information)

**Emergency telephone number**

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

**2. HAZARDS IDENTIFICATION**

**Classification**

**OSHA Regulatory Status**

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin sensitization	Category 1

**GHS Label elements, including precautionary statements****EMERGENCY OVERVIEW**

The product contains no substances which at their given concentration, are considered to be hazardous to health

**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 fungicide.

Chemical name	CAS-No	Weight %
Fluoxastrobin	361377-29-9	40.3
Propylene glycol	57-55-6	1-5

Synonyms are provided in Section 1.

**4. FIRST AID MEASURES**

<b>Eye Contact</b>	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.
<b>Skin Contact</b>	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.
<b>Inhalation</b>	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.
<b>Ingestion</b>	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.
<b>Most important symptoms and effects, both acute and delayed</b>	None known.
<b>Indication of immediate medical attention and special treatment needed, if necessary</b>	Treat symptomatically.

**5. FIRE-FIGHTING MEASURES**

<b>Suitable Extinguishing Media</b>	Water spray, Foam, Dry powder, Carbon dioxide (CO <sub>2</sub> ), Sand.
<b>Specific Hazards Arising from the Chemical</b>	Not flammable
<b>Hazardous Combustion Products</b>	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** Not sensitive.  
**Sensitivity to Static Discharge** Not sensitive.

**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.

**Incompatible products** No information available

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Control parameters

Chemical name	British Columbia	Quebec	Ontario TWAEV	Alberta
Propylene glycol 57-55-6	-	-	TWA: 10 mg/m <sup>3</sup> (aerosol only)  TWA: 50 ppm (aerosol and vapor)  TWA: 155 mg/m <sup>3</sup> (aerosol and vapor)	-

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.

<b>Hand Protection</b>	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.
<b>Respiratory Protection</b>	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.
<b>Hygiene measures</b>	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.
<b>General information</b>	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

<b>Appearance</b>	Off-white, Viscous, liquid
<b>Physical State</b>	Liquid Suspension
<b>Color</b>	No information available
<b>Odor</b>	None
<b>Odor threshold</b>	No information available
<b>pH</b>	6.8 (10 % solution)
<b>Melting point/freezing point</b>	Not applicable
<b>Boiling Point/Range</b>	No information available
<b>Flash point</b>	Not applicable
<b>Evaporation Rate</b>	No information available
<b>Flammability (solid, gas)</b>	No information available
<b>Flammability Limit in Air</b>	
Upper flammability limit:	No information available
Lower flammability limit:	No information available
<b>Vapor pressure</b>	No information available
<b>Vapor density</b>	No information available
<b>Density</b>	No information available
<b>Specific gravity</b>	No information available
<b>Water solubility</b>	Not applicable
<b>Solubility in other solvents</b>	No information available
<b>Partition coefficient</b>	No information available
<b>Autoignition temperature</b>	No information available
<b>Decomposition temperature</b>	No information available
<b>Viscosity, kinematic</b>	No information available
<b>Viscosity, dynamic</b>	822 cps @ 25°C
<b>Explosive properties</b>	No information available
<b>Oxidizing properties</b>	No information available
<b>Molecular weight</b>	No information available
<b>Bulk density</b>	1.19 @ 20 °C

## 10. STABILITY AND REACTIVITY

<b>Reactivity</b>	Not applicable
<b>Chemical Stability</b>	Stable under normal conditions.
<b>Possibility of Hazardous Reactions</b>	None under normal processing.
<b>Hazardous polymerization</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid</b>	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

LD50 Oral > 5000 mg/kg (rat)  
 LD50 Dermal > 5000 mg/kg (rat)  
 LC50 Inhalation > 2.17 mg/L (rat)

Serious eye damage/eye irritation Non-irritating.  
 Skin corrosion/irritation Mildly irritating.  
 Sensitization Sensitizer

### 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.

Chemical name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
Fluoxastrobin 361377-29-9	72-hour EC50 = 0.45 mg/L (Senastrum capricornutum)(biomass) 72-hour EC50 = 2.67 mg/L (Senastrum capricornutum)(growth rate)	96 hr LC50 = 0.435 mg/L (Oncorhynchus mykiss) 96 hr LC50 = 0.57 mg/L (Cyprinus carpio) 96 hr LC50 = 0.97 mg/L (Lepomis macrochirus)	48 hr EC50 = 0.48 mg/L (D. magna) 96 hr LC50 = 0.053 mg/L (M. bahia)

**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

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**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.

**Contaminated Packaging** Containers must be disposed of in accordance with local, state and federal regulations. 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

<b>Packaging Type</b>	Bulk
<b>UN/ID no</b>	UN3082
<b>Proper Shipping Name</b>	Environmentally hazardous substance, solid, n.o.s.
<b>Hazard class</b>	9
<b>Packing Group</b>	III
<b>Marine Pollutant</b>	Fluoxastrobin.
<b>Description</b>	UN3082, Environmentally hazardous substances, liquid, n.o.s. (Fluoxastrobin), 9, III, Marine Pollutant

## 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**

<b>Acute health hazard</b>	Yes
<b>Chronic health hazard</b>	No
<b>Fire hazard</b>	No
<b>Sudden release of pressure hazard</b>	No
<b>Reactive Hazard</b>	No

#### **Clean Water Act**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

#### **CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

#### *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:*

#### **CAUTION:**

*Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.  
This pesticide is toxic to fish and aquatic invertebrates.*

### US State Regulations

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## California Proposition 65

This product does not contain any Proposition 65 chemicals.

## U.S. State Right-to-Know Regulations

This product does not contain any substances regulated by state right-to-know regulations

## International Inventories

Component	TSCA (United States)	DSL (Canada)	EINECS/ELI NCS (Europe)	ENCS (Japan)	China (IECSC)	KECL (Korea)	PICCS (Philippines)	AICS (Australia)
Propylene glycol 57-55-6 ( 1-5 )	X	X	X	X	X	X	X	X

## 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

### Product Certifications

Revision date: 2015-05-27  
Revision note: Initial Release

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**End of Safety Data Sheet**