



Preemptor SC Fungicide

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Date of issue: 10/28/2015 Revision date: 10/28/2015 Supersedes: None

Version: 1.0

SECTION 1: Product and Company Identification

Product Identifier: Preemptor SC Fungicide

Product use: Fungicide.

Supplier's name and address:

FMC Corporation

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

Manufacturer's name and address:

Refer to supplier.

Emergency Telephone #: 1-800-331-3148 (Medical Emergencies-PROSAR)
1-800-424-9300 (24 Hr. Chemtrec Number)

SDS Prepared by: FMC Corporation
SDS Preparation date: October 28, 2015

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

STOT RE 1 H372

Full text of H-phrases: see section 16

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US)



GHS08

Signal word (GHS-US)

: Danger.

Hazard statements (GHS-US)

: H372 - Causes damage to organs through prolonged or repeated exposure

Precautionary statements (GHS-US)

: P260 - Do not breathe mist/vapours/spray
P264 - Wash hands thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P314 - Get medical advice/attention if you feel unwell
P501 - Dispose of contents/container in accordance with local and national regulations

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS-US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixture

Name	Product identifier	%	GHS-US classification
Flutrafol	(CAS No) 76674-21-0	19.3	Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Acute Tox. 4 (Inhalation:dust,mist), H332 STOT RE 2, H373 Aquatic Chronic 3, H412
Fluoxastrobin (Main constituent)	(CAS No) 361377-29-9	14.84	Acute Tox. 4 (Inhalation:dust,mist), H332 STOT RE 1, H372 Aquatic Acute 1, H400
Residues (petroleum), catalytic reformer fractionator, sulfonated, polymers with formaldehyde, sodium salts	(CAS No) 68425-94-5	2.1 - 3.5	Skin Irrit. 2, H315 Eye Irrit. 2A, H319

Full text of H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
- First-aid measures after inhalation : If inhaled and if breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
- First-aid measures after skin contact : Wash skin with mild soap and water. Remove contaminated clothing and shoes.
- First-aid measures after eye contact : If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- First-aid measures after ingestion : Do NOT induce vomiting. Rinse mouth. Get medical advice/attention.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries : Causes damage to organs through prolonged or repeated exposure.

4.3. Indication of any immediate medical attention and special treatment needed

All treatments should be based on observed signs and symptoms of distress in the patient.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Carbon dioxide. Dry powder. Foam. Water spray.
- Unsuitable extinguishing media : None known.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Not flammable.
- Reactivity : No dangerous reactions known.

5.3. Advice for firefighters

- Firefighting instructions : Do not allow run-off from fire fighting to enter drains or water courses. Exercise caution when fighting any chemical fire.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Wear fire/flare resistant/retardant clothing. Wear a self contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Avoid contact with skin and eyes.

6.1.1. For non-emergency personnel

- Protective equipment : Wear suitable gloves.
- Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

- Protective equipment : Wear suitable gloves.
- Emergency procedures : Ventilate area.

6.2. Environmental precautions

Do not discharge into drains or the environment.

6.3. Methods and material for containment and cleaning up

- For containment : Absorb and/or contain spill with inert material, then place in suitable container.

Methods for cleaning up : Wipe up with absorbent material (for example cloth). Take up in non-combustible absorbent material and shove into container for disposal.

6.4. Reference to other sections

Section 13: disposal information. Section 7: safe handling. Section 8: personal protective equipment.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Do not breathe mist, spray, vapours.
Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Do not store near food, foodstuffs, drugs, or potable water supplies. Store in a dry place.
Incompatible products : None known.

7.3. Specific end use(s)

Fungicide.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Fluoxastrobin (361377-29-9)		
ACGIH	Not applicable	
OSHA	Not applicable	
Flutrafol (76674-21-0)		
ACGIH	Not applicable	
OSHA	Not applicable	
Residues (petroleum), catalytic reformer fractionator, sulfonated, polymers with formaldehyde, sodium salts (68425-94-5)		
ACGIH	ACGIH TWA (mg/m ³)	5 mg/m ³ respirable dust
OSHA	Not applicable	

8.2. Exposure controls

Appropriate engineering controls : Avoid creating mist or spray. Avoid splashing. Ensure good ventilation of the work station.
Personal protective equipment : Avoid all unnecessary exposure.
Hand protection : Use rubber gloves.
Eye protection : In case of splashing or aerosol production: protective goggles.
Skin and body protection : Wear water impervious or resistant protective clothing and gloves.
Respiratory protection : In case of inadequate ventilation wear respiratory protection. Use an approved respirator equipped with oil/mist cartridges.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Colour : Off-white
Odour : mild
Odour threshold : No data available
pH : 6.5 - 8 (1% Suspension)
Relative evaporation rate (butylacetate=1) : No data available
Melting point : No data available
Freezing point : No data available
Boiling point : No data available
Flash point : > 93 °C
Self ignition temperature : No data available
Decomposition temperature : No data available
Flammability (solid, gas) : No data available
Vapour pressure : No data available
Relative vapour density at 20 °C : No data available

Density	: 9.44 lb/gal
Solubility	: Water: Solubility in water of component(s) of the mixture : • Fluoxastrobin: 43 mg/l @ 20 °C pH 4; 2.29 mg/l @ 20 °C pH 7; 2.27 mg/l @ 20 °C pH 9 • Flutrafol: 130 mg/l
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: 800 - 1200 cP @ 25 °C
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

Carbon monoxide. Nitrogen oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Fortix Fungicide	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rat	> 5050 mg/kg
LC50 inhalation rat (mg/l)	> 2.12 mg/l/4h
Fluoxastrobin (361377-29-9)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rat	> 5000 mg/kg
LC50 inhalation rat (mg/l)	> 2170 mg/m ³
Flutrafol (76674-21-0)	
LD50 oral rat	1140 mg/kg
LD50 dermal rabbit	1000 mg/kg
LC50 inhalation rat (mg/l)	1.6 mg/l/4h
ATE US (oral)	1140.000 mg/kg bodyweight
ATE US (dermal)	1000.000 mg/kg bodyweight
ATE US (vapours)	1.600 mg/l/4h
ATE US (dust,mist)	1.600 mg/l/4h
Residues (petroleum), catalytic reformer fractionator, sulfonated, polymers with formaldehyde, sodium salts (68425-94-5)	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg

Skin corrosion/irritation	: Not classified (Slightly irritating to skin)
Serious eye damage/irritation	: Not classified (Slightly irritating to eyes.)
Respiratory or skin sensitisation	: Not classified (No sensitizing reaction was observed for guinea pigs.)
Germ cell mutagenicity	: Not classified

Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Causes damage to organs through prolonged or repeated exposure.

Fluoxastrobin (361377-29-9)	
NOAEL (oral, rat, 90 days)	1.5 mg/kg bodyweight/day liver effects
Flutrafol (76674-21-0)	
LOAEL (oral, rat, 90 days)	15 mg/kg bodyweight/day
Aspiration hazard	: Not classified
Likely routes of exposure	: Skin and eyes contact.

SECTION 12: Ecological information

12.1. Toxicity

Fluoxastrobin (361377-29-9)	
LC50 fishes 1	0.435 mg/l 96 h <i>Oncorhynchus mykiss</i>
LC50 other aquatic organisms 1	0.053 mg/l 96 h <i>M. bahia</i>
EC50 Daphnia 1	0.48 mg/l 48 h
LC50 fish 2	0.57 mg/l 96 h <i>Cyprinus carpio</i> ; 0.97 mg/l 96 h <i>Lepomis macrochirus</i>
Flutrafol (76674-21-0)	
LC50 fishes 1	61 mg/l 96 h <i>Oncorhynchus mykiss</i>
LC50 fishes 2	77 mg/l 96 h <i>Cyprinus carpio</i>
EC50 Daphnia 1	78 mg/l 48 h

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

Fluoxastrobin (361377-29-9)	
Bioconcentration factor (BCF REACH)	52.1
Log Pow	2.86 @ 20 °C
Flutrafol (76674-21-0)	
Log Kow	2.29

12.4. Mobility in soil

Fluoxastrobin (361377-29-9)	
Ecology - soil	Slightly mobile in soil.

12.5. Other adverse effects

Effect on ozone layer	: No known ecological damage caused by this product.
Effect on the global warming	: No known ecological damage caused by this product.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Sewage disposal recommendations	: Do not dispose of waste into sewer.
Waste disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations. Disposal via incineration is recommended.

SECTION 14: Transport information

In accordance with DOT
Not considered a dangerous good for transport regulations

Additional information

Other information	: No supplementary information available.
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ADR

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

SECTION 15: Regulatory information

15.1. US Federal regulations

Fluoxastrobin (361377-29-9)

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

Flutriafol (76674-21-0)

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

Residues (petroleum), catalytic reformer fractionator, sulfonated, polymers with formaldehyde, sodium salts (68425-94-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

Fortix Fungicide

WHMIS Classification	Class D Division 2 Subdivision B - Toxic material causing other toxic effects
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Fluoxastrobin (361377-29-9)

Not listed on the Canadian DSL (Domestic Substances List) inventory.

WHMIS Classification	Class D Division 2 Subdivision B - Toxic material causing other toxic effects
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Flutriafol (76674-21-0)

Not listed on the Canadian DSL (Domestic Substances List) inventory.

Residues (petroleum), catalytic reformer fractionator, sulfonated, polymers with formaldehyde, sodium salts (68425-94-5)

Listed on the Canadian DSL (Domestic Substances List) inventory.

EU-Regulations

Fluoxastrobin (361377-29-9)

Not listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) substances.

Flutriafol (76674-21-0)

Not listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) substances.

Residues (petroleum), catalytic reformer fractionator, sulfonated, polymers with formaldehyde, sodium salts (68425-94-5)

Not listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) substances.

Classification according to Regulation (EC) No. 1272/2008 [CLP]

STOT RE 1 H372

Full text of H-phrases: see section 16

Classification according to Directive 67/548/EEC or 1999/45/EC

Xn; R48/22

15.2.2. National regulations

Fluoxastrobin (361377-29-9)

Not listed on the Canadian Non-Domestic Substances List (NDSL).

Flutriafol (76674-21-0)

Not listed on the Canadian Non-Domestic Substances List (NDSL).

15.3. US State regulations

No additional information available

15.4. US EPA - FIFRA Regulations

This chemical is a pesticide product registered by the United States 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 (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

Signal word (FIFRA)

: Caution.

Hazard statements (FIFRA)

: Harmful if swallowed.

Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

- Environmental hazards : This pesticide is toxic to fish and aquatic invertebrates. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. The active ingredient in this product can be persistent for several months or longer. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark, or other sensitive areas that may be exposed to spray drift. Do not contaminate water when disposing of equipment washwater or rinsate.
- Ground Water Advisory: Flutriol has properties and characteristics associated with chemicals detected in ground water. This chemical may leach into ground water if used in areas where soils are permeable, particularly where the water table is shallow.
- Surface Water Advisory: this product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having a high potential for reaching surface water via runoff for several months or more after application.
- Physical or Chemical hazards : None

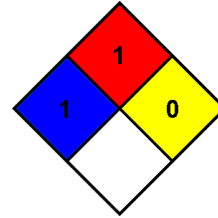
SECTION 16: Other information

- Indication of changes : GHS classification information. Revised sections: 1 - 16. Revised format.
- Revision date : 11/05/2014
- Data sources : European Chemicals Agency (ECHA) Registered Substances list. Accessed at <http://echa.europa.eu/>.
- Krister Forsberg and S.Z. Mansdorf, "Quick Selection Guide to Chemical Protective Clothing", Fifth Edition.
- OSHA 29CFR 1910.1200 Hazard Communication Standard.
- TSCA Chemical Substance Inventory. Accessed at <http://www.epa.gov/oppt/existingchemicals/pubs/tscainventory/howto.html>.
- Abbreviations and acronyms : ACGIH (American Conference of Government Industrial Hygienists).
- ATE: Acute Toxicity Estimate.
- CAS (Chemical Abstracts Service) number.
- CLP: Classification, Labelling, Packaging.
- EC50: Environmental Concentration associated with a response by 50% of the test population.
- GHS: Globally Harmonized System (of Classification and Labeling of Chemicals).
- LD50: Lethal Dose for 50% of the test population.
- OSHA: Occupational Safety & Health Administration.
- STEL: Short Term Exposure Limits.
- TSCA: Toxic Substances Control Act.
- TWA: Time Weight Average.
- Other information : None.

Full text of H-phrases::

Acute Tox. 3 (Dermal)	Acute toxicity (dermal) Category 3
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Chronic 3	Hazardous to the aquatic environment - Chronic Hazard Category 3
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Skin Irrit. 2	skin corrosion/irritation Category 2
STOT RE 1	Specific target organ toxicity (repeated exposure) Category 1
STOT RE 2	Specific target organ toxicity (repeated exposure) Category 2
H302	Harmful if swallowed
H311	Toxic in contact with skin
H315	Causes skin irritation
H319	Causes serious eye irritation
H332	Harmful if inhaled
H372	Causes damage to organs through prolonged or repeated exposure
H373	May cause damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H412	Harmful to aquatic life with long lasting effects

NFPA health hazard : 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.
NFPA fire hazard : 1 - Must be preheated before ignition can occur.
NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and not reactive with water.



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End of Safety Data Sheet