

# Material Safety Data Sheet

## DISMISS™ TURF HERBICIDE

SDS #: 6304-A  
Revision Date: 2012-01-24  
Version 0.01



This MSDS has been prepared to meet U.S. OSHA Hazard Communication Standard 29 CFR 1910.1200 and Canada's Workplace Hazardous Materials Information System (WHMIS) requirements.

### 1. PRODUCT AND COMPANY IDENTIFICATION

|  |   |
|--|---|
| <b>Product name</b>  | DISMISS™ TURF HERBICIDE   |
| <b>Formula code</b>  | 6304-A  |
| <b>Active Ingredient(s)</b>  | Sulfentrazone.  |
| <b>Synonyms</b>  | FMC 97285; 2',4'-dichloro-5'-(4-difluoromethyl-4,5-dihydro-3-methyl-5-oxo-1H-1,2,4-triazol-1-yl) methanesulfonanilide; N-[2,4-dichloro-5-[4-(difluoromethyl)-4,5-dihydro-3-methyl-5-oxo-1H-1,2,4-triazol-1-yl]phenyl] methanesulfonamide  |
| <b>Chemical Family</b>   | Triazolinones   |
| <b>Recommended use</b>   | Herbicide   |
| <b>Manufacturer</b><br>FMC Corporation<br>Agricultural Products Group<br>1735 Market Street<br>Philadelphia, PA 19103<br>General Information:<br>Phone: (215) 299-6000<br>E-Mail: msdsinfo@fmc.com | <b>Emergency telephone number</b><br><br>For leak, fire, spill or accident emergencies, call:<br>+1 800.424.9300 (CHEMTREC - U.S.A.)<br>+1 703.527.3887 (CHEMTREC - Collect - All Other Countries)<br>Medical Emergencies:<br>(800) 331-3148 (U.S.A. & Canada)<br>+1 (651) 632-6793 (All Other Countries - Collect) |

### 2. Hazards identification

|                                     |  |
|-------------------------------------|--|
| <b>Appearance</b>                   | off-white liquid   |
| <b>Physical state</b>               | liquid   |
| <b>Odor</b>                         | Faint Alcohol  |
| <b>Potential health effects</b>     |  |
| <b>Principle Routes of Exposure</b> | Eye contact, Skin contact, Inhalation, Ingestion.  |
| <b>Acute effects</b>                |  |
| <b>Eyes</b>                         | May cause slight irritation.   |
| <b>Skin</b>                         | Substance may cause slight skin irritation.  |
| <b>Inhalation</b>                   | May cause irritation of respiratory tract. May cause drowsiness and dizziness.   |
| <b>Ingestion</b>                    | May cause central nervous system depression. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.   |
| <b>Chronic effects</b>              | Effects are expected to be similar to those that are seen with acute toxicity. Contains toluene. Exposure to toluene in animals via inhalation and intentional overexposure to toluene in humans has caused adverse fetal development effects. |

### 3. Composition/information on ingredients

#### Hazardous ingredients

| Chemical Name   | CAS-No      | Weight % |
|---|-------------|----------|
| Sulfentrazone   | 122836-35-5 | 40       |
| Propylene glycol  | 57-55-6     | 5-10     |
| Oxirane, methyl-, polymer with oxirane, monobutyl ester | 9038-95-3   | 1-5      |
| Toluene   | 108-88-3    | <3       |

### 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 treatment advice.  |
| Inhalation   | Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.  |
| Ingestion    | Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not induce vomiting or give anything by mouth to an unconscious person. |

### 5. Fire-fighting measures

|   |   |
|---|---|
| Flash Point   | > 94 °C / > 201 °F  |
| Method  | Tag Closed Cup  |
| Sensitivity to Mechanical Impact                      | not applicable  |
| Sensitivity to Static Discharge                       | not applicable  |
| Suitable extinguishing media                          | Carbon dioxide (CO <sub>2</sub> ). Foam. Dry powder. Water spray. |
| Protective equipment and precautions for firefighters | Wear self-contained breathing apparatus and protective suit.      |

#### NFPA

|                 |   |
|-----------------|---|
| Health Hazard   | 1 |
| Flammability    | 1 |
| Stability       | 0 |
| Special Hazards | - |

### 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. |
| Environmental precautions | Keep people and animals away from and upwind of spill/leak. Keep material out of lakes, streams, ponds, and sewer drains.  |
| 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** Clean and neutralize spill area, tools and equipment by washing with bleach water and soap. Absorb rinsate and add to the collected waste. Waste must be classified and labeled prior to recycling or disposal. Dispose of waste as indicated in Section 13.

**Other** For further clean-up instructions call FMC Emergency Hotline number listed in Section 1 "Product and Company Identification" above.

## 7. Handling and storage

**Handling** Do not contaminate other pesticides, fertilizers, water, food or feed by storage or disposal.

**Storage** Keep in a dry, cool and well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition. Keep out of reach of children and animals. Store in original container.

## 8. Exposure controls/personal protection

### Exposure guidelines

| Chemical Name       | ACGIH TLV   | OSHA PEL                         | NIOSH   | Mexico  |
|---------------------|-------------|----------------------------------|---|---|
| Toluene<br>108-88-3 | TWA: 20 ppm | TWA: 200 ppm<br>Ceiling: 300 ppm | IDLH: 500 ppm<br>TWA: 100 ppm TWA: 375<br>mg/m <sup>3</sup><br>STEL: 150 ppm STEL: 560<br>mg/m <sup>3</sup> | Mexico: S*<br>Mexico: TWA 50 ppm Mexico:<br>TWA 188 mg/m <sup>3</sup> |

| Chemical Name               | British Columbia | Quebec  | Ontario TWAEV   | Alberta   |
|-----------------------------|------------------|---|---|---|
| Propylene glycol<br>57-55-6 |                  |   | TWA: 10 mg/m <sup>3</sup> TWA: 50 ppm<br>TWA: 155 mg/m <sup>3</sup> |   |
| Toluene<br>108-88-3         | TWA: 20 ppm      | TWA: 50 ppm TWA: 188<br>mg/m <sup>3</sup><br>Skin | TWA: 20 ppm   | TWA: 50 ppm TWA: 188<br>mg/m <sup>3</sup><br>Skin |

### Occupational exposure 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.

### Personal Protective Equipment

**General Information** If the product is used in mixtures, it is recommended that you contact the appropriate protective equipment suppliers. These recommendations apply to the product as supplied.

**Respiratory protection** For dust, splash, mist or spray exposures wear a filtering mask.

**Eye/face protection** For dust, splash, mist or spray exposure, wear chemical protective goggles or a face-shield.

**Skin and body protection** Wear long-sleeved shirt, long pants, socks, shoes, and gloves.

**Hand protection** Protective gloves

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

## 9. Physical and chemical properties

|                                 |                                   |
|---------------------------------|-----------------------------------|
| <b>Appearance</b>               | off-white liquid                  |
| <b>Color</b>                    | off-white                         |
| <b>Physical state</b>           | liquid                            |
| <b>Odor</b>                     | Faint Alcohol                     |
| <b>pH</b>                       | 5.3-6.0 @ 20°C                    |
| <b>Melting Point/Range</b>      | No information available.         |
| <b>Freezing point</b>           | No information available          |
| <b>Boiling Point/Range</b>      | not applicable                    |
| <b>Flash Point</b>              | > 94 °C / > 201 °F Tag Closed Cup |
| <b>Evaporation rate</b>         | not applicable                    |
| <b>Autoignition Temperature</b> | not applicable                    |
| <b>Vapor pressure</b>           | No information available          |
| <b>Vapor density</b>            | No information available          |
| <b>Specific Gravity</b>         | 1.206 @ 20 °C (water = 1)         |
| <b>Water solubility</b>         | Dispersible in water              |
| <b>Percent volatile</b>         | No information available          |
| <b>Partition coefficient:</b>   | not applicable                    |
| <b>Viscosity</b>                | No information available          |
| <b>Oxidizing properties</b>     | not applicable                    |

## 10. Stability and reactivity

|   |  |
|---|--|
| <b>Stability</b>                        | Stable.  |
| <b>Conditions to avoid</b>              | Excessive heat   |
| <b>Hazardous decomposition products</b> | Carbon oxides, nitrogen oxides (NOx), Sulfur oxides, Hydrogen chloride, Hydrogen fluoride. |
| <b>Hazardous polymerization</b>         | Hazardous polymerization does not occur  |

## 11. Toxicological information

### Acute Toxicity

Signs of toxicity in laboratory animals, with sulfentrazone, included clonic convulsions, ataxia, hypersensitivity to touch, chromorhinorrhea, abdominogenital staining, decreased locomotion, lacrimation, nasal discharge, and squinting eyes.

**Eye contact** Slightly or non-irritating (rabbit)

**Skin contact** Slightly or non-irritating (rabbit)

**LD50 Dermal** > 2000 mg/kg (rabbit)

**LD50 Oral** 2084 mg/kg (rat)

**LC50 Inhalation:** > 2.72 mg/L 4 hr (rat) - Maximum attainable concentration (zero mortality)

### Chronic Toxicity - Other Ingredient(s)

**Chronic Toxicity** Effects are expected to be similar to those that are seen with acute toxicity Contains toluene. Exposure to toluene in animals via inhalation and intentional overexposure to toluene in humans has caused adverse fetal development effects

**Carcinogenicity** Sulfentrazone: Did not show carcinogenic effects in animal experiments.

**Mutagenicity** Sulfentrazone: Did not show mutagenic effects in animal experiments.

**Reproductive toxicity** Offspring Toxicity (sulfentrazone): LOAEL = 33 mg/kg/day for males; 40 mg/kg/day for females.

**Neurological Effects** Sulfentrazone: Altered motor activity and FOB effects, which reverse after single exposure, with no signs of histopathology

**Developmental Toxicity** Sulfentrazone: NOAEL of 10 mg/kg/day in the developmental toxicity study in rat. NOAEL of 14 mg/kg/day in a 2-generation reproduction study. Contains ingredients that have suspected developmental hazards. Inhalation of toluene vapors at high doses have resulted in an increased incidence of malformations and decreased fetal weight in laboratory animals

**Target Organ Effects** Sulfentrazone: Hematopoietic System.

| Chemical Name | ACGIH | IARC | NTP | OSHA | NIOSH - Target Organs                          |
|---------------|-------|------|-----|------|--|
| Toluene       |       |      |     |      | CNS,eyes,kidneys,liver,respiratory system,skin |

## 12. Ecological information

### Ecotoxicity

**Ecotoxicity effects** Very toxic to aquatic organisms.

#### Sulfentrazone (122836-35-5)

| Active Ingredient(s) | Duration     | Species           | Value | Units |
|----------------------|--------------|-------------------|-------|-------|
| Sulfentrazone        | 120 h LC50   | Algae             | 31    | µg/L  |
|                      | 48 h LC50    | Aquatic organisms | 60.4  | mg/L  |
|                      | 96 h LC50    | Fish              | 94    | mg/L  |
|                      | LD50 Oral    | Bobwhite quail    | >2250 | mg/kg |
|                      | LD50 Dietary | Mallard duck      | >5620 | ppm   |

| Chemical Name    | Toxicity to algae   | Toxicity to fish   | Toxicity to microorganisms | Toxicity to daphnia and other aquatic invertebrates |
|------------------|---|--|----------------------------|---|
| Propylene glycol | 19000 mg/L EC50 96 h (Pseudokirchneriella subcapitata)  | LC50 51600 mg/L Oncorhynchus mykiss 96 h LC50 41 - 47 mL/L Oncorhynchus mykiss 96 h LC50 51400 mg/L Pimephales promelas 96 h LC50 710 mg/L Pimephales promelas 96 h  |                            | EC50 > >10000 mg/L 24 h EC50 > >1000 mg/L 48 h      |
| Toluene          | >433 mg/L EC50 96 h (Pseudokirchneriella subcapitata) 12.5 mg/L EC50 72 h (Pseudokirchneriella subcapitata) | LC50 15.22-19.05 mg/L Pimephales promelas 96 h LC50 12.6 mg/L Pimephales promelas 96 h LC50 5.89-7.81 mg/L Oncorhynchus mykiss 96 h LC50 14.1-17.16 mg/L Oncorhynchus mykiss 96 h LC50 5.8 mg/L Oncorhynchus mykiss 96 h LC50 11.0-15.0 mg/L Lepomis macrochirus 96 h LC50 54 mg/L Oryzias latipes 96 h LC50 28.2 mg/L Poecilia reticulata 96 h LC50 50.87-70.34 mg/L Poecilia reticulata 96 h |                            | EC50 5.46 - 9.83 mg/L 48 h EC50 11.5 mg/L 48 h      |

### Environmental Fate

## Sulfentrazone (122836-35-5)

| Active Ingredient(s) | Type of Test                  | Result   |
|----------------------|-------------------------------|--|
| Sulfentrazone        | Bioconcentration factor (BCF) | 2  |
|                      | Half-life in soil             | 2-18 months  |
|                      | log Pow                       | 1.5  |
|                      | Mobility in soil              | Potential to reach groundwater                       |
|                      | Stability in water            | Stable to hydrolysis over a wide range of pH values. |

| Chemical Name | log Pow |
|---------------|---------|
| Toluene       | 2.65    |

### 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.

**Contaminated packaging** Containers must be disposed of in accordance with local, state and federal regulations. Refer to the product label for container disposal instructions.

### 14. Transport information

**DOT** This material is not a hazardous material as defined by U.S. Department of Transportation at 49 CFR Parts 100 through 185.

**Packaging Type** Non-Bulk, Bulk

**TDG** Classification below is only applicable when shipped by vessel and is not applicable when shipped by road or rail only.

**Proper shipping name** Environmentally hazardous substance, liquid, n.o.s.

**Hazard Class** 9

**UN/ID No** UN3082

**Packing group** III

**Marine pollutant** Sulfentrazone.

**Description** UN3082, Environmentally hazardous substance, liquid, n.o.s. (sulfentrazone), 9, PGIII, Marine pollutant

#### ICAO/IATA

**UN/ID No** UN3082

**Proper shipping name** Environmentally hazardous substance, liquid, n.o.s.

**Hazard Class** 9

**Packing group** III

**Marine pollutant** Sulfentrazone

**Description** UN3082, Environmentally hazardous substance, liquid, n.o.s. (sulfentrazone), 9, PGIII, Marine pollutant

#### IMDG/IMO

**Proper shipping name** Environmentally hazardous substance, liquid, n.o.s.

**Hazard Class** 9

**UN/ID No** UN3082

**Packing group** III

**EmS No.** F-A, S-F

**Marine pollutant** Sulfentrazone

**Description** UN3082, Environmentally hazardous substance, liquid, n.o.s. (sulfentrazone), 9, PGIII, 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 contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

| Chemical Name | CAS-No   | Weight % | SARA 313 - Threshold Values % |
|---------------|----------|----------|-------------------------------|
| Toluene       | 108-88-3 | <3       | 1.0                           |

#### SARA 311/312 Hazard Categories

|                                   |     |
|-----------------------------------|-----|
| Acute Health Hazard               | yes |
| Chronic Health Hazard             | yes |
| Fire Hazard                       | no  |
| Sudden Release of Pressure Hazard | no  |
| Reactive Hazard                   | no  |

#### CERCLA

| Chemical Name | Hazardous Substances RQs | Extremely Hazardous Substances RQs |
|---------------|--------------------------|------------------------------------|
| Toluene       | 1000 lb                  |                                    |

#### TSCA Inventory (United States of America)

| Chemical Name | U.S. - TSCA (Toxic Substances Control Act) - Section 8(d) - 716.120(a) - Health and Safety Reporting - List of Substances |
|---------------|---|
| Toluene       | 10/04/1982  |

### International Regulations

#### Mexico - Grade

Slight risk, Grade 1

| Chemical Name | Carcinogen Status | Mexico   |
|---------------|-------------------|--|
| Toluene       |                   | Mexico: S*<br>Mexico: TWA 50 ppm Mexico: TWA 188 mg/m <sup>3</sup> |

#### Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class

D2A Very toxic materials



## 16. Other information

Revision Date: 2012-01-24  
Reason for revision: (M)SDS sections updated.

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**End of Material Safety Data Sheet**