

# Material Safety Data Sheet

Authority® Maxx Herbicide

MSDS #: 6884-A

Revision Date: 2013-08-29

Version 1



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

## 1. PRODUCT AND COMPANY IDENTIFICATION

|   |  |
|---|--|
| <b>Product name</b>   | Authority® Maxx Herbicide  |
| <b>Formula code</b>   | 6884   |
| <b>Active Ingredient(s)</b>   | Sulfentrazone, Chlorimuron ethyl   |
| <b>Alternate Commercial Name</b>  | F9016-2 DF Herbicide   |
| <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<br>FMC 116426; ethyl (RS)-2-chloro-3-[2-chloro-5-(4-difluoromethyl-4,5-dihydro-3-methyl-5-oxo-1H-1,2,4-triazol-1-yl)-4-fluorophenyl] propionate; ethyl $\alpha$ ,2-dichloro-5-[4-(difluoromethyl)-4,5-dihydro-3-methyl-5-oxo-1H-1,2,4-triazol-1-yl]-4-fluorobenzenepropanoate |
| <b>Chemical Family</b>  | Triazolinones; Sulfonylurea  |
| <b>Recommended use:</b>   | Herbicide  |
| <b><u>Manufacturer</u></b>  | <b><u>Emergency telephone number</u></b>   |
| 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 | 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>1 800 / 331-3148 (PROSAR - U.S.A. & Canada)<br>1 651 / 632-6793 (PROSAR - All Other Countries - Collect)  |

## 2. HAZARDS IDENTIFICATION

|   |  |
|---|--|
| <b><u>Appearance</u></b>  | solid  |
| <b><u>Physical state</u></b>  | solid  |
| <b><u>Odor</u></b>  | No information available.                              |
| <b>Flammable properties</b>   | Powdered material may form explosive dust-air mixtures |
| <b><u>Potential health effects</u></b><br><b>Principle Routes of Exposure</b> | Eye contact, Skin contact, Inhalation, Ingestion.      |

**Acute effects**

**Eyes** May cause slight irritation.  
**Skin** Substance may cause slight skin irritation.  
**Inhalation** May cause irritation of respiratory tract.  
**Ingestion** May be harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. May cause central nervous system depression.

**Chronic effects**

Effects are expected to be similar to those that are seen with acute toxicity.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Hazardous ingredients

| Chemical Name  | CAS-No      | Weight % |
|--|-------------|----------|
| Sulfentrazone  | 122836-35-5 | 68.26    |
| Lignin, alkali, reaction products with Disodium sulfite and Formaldehyde | 105859-97-0 | 5-10     |
| Chlorimuron ethyl  | 90982-32-4  | 4        |

**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 (within the U.S. and Canada) 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**

**Flammable properties** Powdered material may form explosive dust-air mixtures

**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

|                                  |   |
|----------------------------------|---|
| <b>Personal precautions</b>      | 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.  |
| <b>Environmental precautions</b> | Keep people and animals away from and upwind of spill/leak. Keep material out of lakes, streams, ponds, and sewer drains.   |
| <b>Methods for containment</b>   | Use a wet sweeping compound or water to prevent dust formation.   |
| <b>Methods for cleaning up</b>   | Sweep up and shovel into suitable containers for disposal. 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. |
| <b>Other</b>                     | For further clean-up instructions call FMC Emergency Hotline number listed in Section 1 "Product and Company Identification" above.   |

## 7. HANDLING AND STORAGE

|                 |  |
|-----------------|--|
| <b>Handling</b> | Do not contaminate other pesticides, fertilizers, water, food or feed by storage or disposal.  |
| <b>Storage</b>  | 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 CONTROL / PERSONAL PROTECTION

|  |   |
|--|---|
| <b><u>Exposure guidelines</u></b>            | This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.   |
| <b><u>Occupational exposure controls</u></b> |   |
| <b>Engineering measures</b>                  | 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.  |
| <b><u>Personal Protective Equipment</u></b>  |   |
| <b>General Information</b>                   | 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.  |
| <b>Respiratory protection</b>                | For dust, splash, mist or spray exposures wear a filtering mask.  |
| <b>Eye/face protection</b>                   | For dust, splash, mist or spray exposure, wear chemical protective goggles or a face-shield.  |
| <b>Skin and body protection</b>              | Wear long-sleeved shirt, long pants, socks, shoes, and gloves.  |
| <b>Hand protection</b>                       | Protective gloves   |
| <b>Hygiene measures</b>                      | 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

### Information on basic physical and chemical properties

|                               |  |
|-------------------------------|--|
| <b>Appearance</b>             | solid  |
| <b>Physical state</b>         | solid  |
| <b>Odor</b>                   | No information available.                              |
| <b>pH</b>                     | 6.85 (1% solution)                                     |
| <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>            | Not applicable   |
| <b>Evaporation rate</b>       | Not applicable   |
| <b>Flammable properties</b>   | Powdered material may form explosive dust-air mixtures |
| <b>Vapor pressure</b>         | No information available.                              |
| <b>Vapor density</b>          | No information available.                              |
| <b>Bulk density</b>           | 34-37 lb/cu ft   |
| <b>Water solubility</b>       | No information available                               |
| <b>Percent volatile</b>       | No information available.                              |
| <b>Partition coefficient:</b> | Not applicable   |
| <b>Viscosity</b>              | No information available.                              |

## 10. STABILITY AND REACTIVITY

|   |  |
|---|--|
| <b>Stability</b>                        | Stable.  |
| <b>Conditions to avoid</b>              | None known   |
| <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 effects

#### Acute Toxicity

Signs of toxicity in laboratory animals included piloerection, spasm, convulsions, hunched posture, ataxia, stained perineum.

|                     |                                     |
|---------------------|-------------------------------------|
| <b>Eye contact</b>  | Slightly or non-irritating (rabbit) |
| <b>Skin contact</b> | Slightly or non-irritating (rabbit) |

|                         |                        |
|-------------------------|------------------------|
| <b>LD50 Dermal</b>      | > 5000 mg/kg (Rat)     |
| <b>LD50 Oral</b>        | 1750 mg/kg (Rat)       |
| <b>LC50 Inhalation:</b> | > 2.07 mg/L 4 hr (Rat) |

|                      |                |
|----------------------|----------------|
| <b>Sensitization</b> | Non-sensitizer |
|----------------------|----------------|

### Chronic effects

|                              |   |
|------------------------------|---|
| <b>Chronic Toxicity</b>      | Effects are expected to be similar to those that are seen with acute toxicity.  |
| <b>Carcinogenicity</b>       | Sulfentrazone, Chlorimuron ethyl: Did not show carcinogenic effects in animal experiments.  |
| <b>Mutagenicity</b>          | Sulfentrazone, Chlorimuron ethyl: Did not show mutagenic effects in animal experiments.   |
| <b>Reproductive toxicity</b> | Sulfentrazone: Offspring Toxicity (sulfentrazone): LOAEL = 33 mg/kg/day for males; 40 mg/kg/day for females. Chlorimuron ethyl did not affect reproduction and lactation performance. |
| <b>Neurological Effects</b>  | 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. Chlorimuron ethyl: Maternal and fetal NOELs were 250 ppm based on reduced maternal and fetal body weights. It was weakly teratogenic in rats and non-teratogenic in rabbits.

**Target Organ Effects** Sulfentrazone: Hematopoietic System. Chlorimuron ethyl: Red blood cell reduction can occur due to hemoglobin biosynthesis inhibition. Accumulation of precursors of hemoglobin may lead to secondary toxicity to liver and other organs.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

| 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    |

| Chlorimuron ethyl (90982-32-4) |              |         |          |        |
|--------------------------------|--------------|---------|----------|--------|
| Active Ingredient(s)           | Duration     | Species | Value    | Units: |
| Chlorimuron ethyl              | LC50         | Fish    | 100-1000 | mg/L   |
|                                | LD50 Dietary | Bird    | >5620    | ppm    |
|                                | LD50 Oral    | Bird    | >2510    | mg/kg  |

### 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. |

| Chlorimuron ethyl (90982-32-4) |                   |           |
|--------------------------------|-------------------|-----------|
| Active Ingredient(s)           | Type of Test      | Result    |
| Chlorimuron ethyl              | Half-life in soil | 7.5 weeks |
|                                | log Pow           | 1.3       |

## 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.

**UN/ID No** UN3077  
**Hazard Class** 9  
**Packing group** III  
**Marine pollutant** Sulfentrazone.  
**Description** UN3077, Environmentally hazardous substance, solid, n.o.s. (sulfentrazone), 9, PGIII, Marine Pollutant

**ICAO/IATA**

**UN/ID No** UN3077  
**Hazard Class** 9  
**Packing group** III  
**Marine pollutant** Sulfentrazone  
**Description** UN3077, Environmentally hazardous substance, solid, n.o.s. (sulfentrazone), 9, PGIII, Marine Pollutant

**IMDG/IMO**

**UN/ID No** UN3077  
**Hazard Class** 9  
**Packing group** III  
**EmS No.** F-A, S-F  
**Marine pollutant** Sulfentrazone  
**Description** UN3077, Environmentally hazardous substance, solid, 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:

**SARA 311/312 Hazard Categories**

|  |     |
|--|-----|
| <b>Acute Health Hazard</b>               | yes |
| <b>Chronic Health Hazard</b>             | yes |
| <b>Fire Hazard</b>                       | no  |
| <b>Sudden Release of Pressure Hazard</b> | no  |
| <b>Reactive Hazard</b>                   | no  |

**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):

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

**International Regulations**

**Mexico - Grade**  
**Canada**

Slight risk, Grade 1

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**

D2B Toxic materials



**16. OTHER INFORMATION**

**Revision Date:** 2013-08-29  
**Reason for revision:** (M)SDS sections updated.

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**End of Material Safety Data Sheet**