

**Syngenta Crop Protection, Inc.**  
**Post Office Box 18300**  
**Greensboro, NC 27419**

**In Case of Emergency, Call**  
**1-800-888-8372**

**1. PRODUCT IDENTIFICATION**

Product Name: **MAXIM XL FUNGICIDE** Product No.: A10013A  
 EPA Signal Word: Caution  
 Active Ingredient(%): Fludioxonil (21.0%) CAS No.: 131341-86-1  
 Chemical Name: 4-(2,2-difluoro-1,3-benzodioxol-4-yl)-1H-pyrrole-3-carbonitrile  
 Chemical Class: Substituted Benzodioxalcarbonitrile Fungicide  
 Active Ingredient(%): Mefenoxam (8.4%) CAS No.: 70630-17-0  
 Chemical Name: (R)-2-[(2,6-dimethylphenyl)-methoxyacetylamino]-propionic acid methyl ester  
 Chemical Class: Phenylamide Fungicide  
 EPA Registration Number(s): 100-916 **Section(s) Revised: 2, 11, 15**

**2. COMPOSITION/INFORMATION ON INGREDIENTS**

Material	OSHA PEL	ACGIH TLV	Other	NTP/IARC/OSHA Carcinogen
Ethylene Glycol (<= 6%)	Not Established	100 mg/m <sup>3</sup> (ceiling) [aerosol]	Not Established	No
Mefenoxam (8.4%)	Not Established	Not Established	Not Established	No
Fludioxonil (21.0%)	Not Established	Not Established	10 mg/m <sup>3</sup> TWA***	No

\*\*\* Syngenta Occupational Exposure Limit (OEL)

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.  
 Syngenta Hazard Category: B

**3. HAZARDS IDENTIFICATION**
Symptoms of Acute Exposure

Causes mild eye and skin irritation.

Hazardous Decomposition Products

Can decompose at high temperatures forming toxic gases.

Physical Properties

Appearance: Tan liquid

Odor: Sweet, like latex paint

Unusual Fire, Explosion and Reactivity Hazards

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

**4. FIRST AID MEASURES**

Have the product container, label or Material Safety Data Sheet with you when calling Syngenta (800-888-8372), a poison control center or doctor, or going for treatment.

Ingestion: If swallowed: Call Syngenta (800-888-8372), a poison control center or doctor immediately for treatment

advice. Have the person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so after calling 800-888-8372 or by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

**Eye Contact:** If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call Syngenta (800-888-8372), a poison control center or doctor for treatment advice.

**Skin Contact:** If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call Syngenta (800-888-8372), a poison control center or doctor for treatment advice.

**Inhalation:** If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call Syngenta (800-888-8372), a poison control center or doctor for further treatment advice.

#### Notes to Physician

There is no specific antidote if this product is ingested.

Treat symptomatically.

#### Medical Condition Likely to be Aggravated by Exposure

None known.

## **5. FIRE FIGHTING MEASURES**

### Fire and Explosion

Flash Point (Test Method): > 200°F  
Flammable Limits (% in Air): Lower: % Not Applicable Upper: % Not Applicable  
Autoignition Temperature: Not Available  
Flammability: Not Applicable

### Unusual Fire, Explosion and Reactivity Hazards

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

### In Case of Fire

Use dry chemical, foam or CO2 extinguishing media. Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion. Prevent use of contaminated buildings, area, and equipment until decontaminated. Water runoff can cause environmental damage. If water is used to fight fire, dike and collect runoff.

## **6. ACCIDENTAL RELEASE MEASURES**

### In Case of Spill or Leak

Control the spill at its source. Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions outlined in Section 8. Cover entire spill with absorbing material and place into compatible disposal container. Scrub area with hard water detergent (e.g. commercial products such as Tide, Joy, Spic and Span). Pick up wash liquid with additional absorbent and place into compatible disposal container. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposition.

## **7. HANDLING AND STORAGE**

Store the material in a well-ventilated, secure area out of reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

## **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION, PACKAGING AND USE OF THIS PRODUCT.**

**FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.**

**Ingestion:** Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

Eye Contact: Where eye contact is likely, use chemical splash goggles.

Skin Contact: Where contact is likely, wear chemical-resistant (such as nitrile or butyl) gloves, coveralls, socks and chemical-resistant footwear. For overhead exposure, wear chemical-resistant headgear.

Inhalation: Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below exposure limits. A NIOSH-certified combination air-purifying respirator with an N, P or R 95 or HE class filter and an organic vapor cartridge may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air-purifying respirators is limited. Use a pressure demand atmosphere-supplying respirator if there is any potential for uncontrolled release, exposure levels are not known, or under any other circumstances where air-purifying respirators may not provide adequate protection.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Tan liquid

Odor: Sweet, like latex paint

Melting Point: Not Applicable

Boiling Point: Not Available

Specific Gravity/Density: 1.10 g/cm<sup>3</sup>

pH: Not Available

### Solubility in H<sub>2</sub>O

Fludioxonil: 1.8 mg/l @ 77°F (25°C)

Mefenoxam: 26 g/l @ 77°F (25°C)

### Vapor Pressure

Fludioxonil: 2.9 x 10<sup>(-9)</sup> mmHg @ 77°F (25°C)

Mefenoxam: 2.5 x 10<sup>(-5)</sup> mmHg @ 77°F (25°C)

## 10. STABILITY AND REACTIVITY

Stability: Stable under normal use and storage conditions.

Hazardous Polymerization: Will not occur.

Conditions to Avoid: None known.

Materials to Avoid: None known.

Hazardous Decomposition Products: Can decompose at high temperatures forming toxic gases.

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity/Irritation Studies (Finished Product)

Ingestion: Slightly Toxic  
Oral (LD50 Rat) : 2,830 mg/kg body weight

Dermal: Slightly Toxic  
Dermal (LD50 Rabbit) : > 2,020 mg/kg body weight

Inhalation: Practically Non-Toxic  
Inhalation (LC50 Rat) : > 2.7 mg/l air - 4 hours

Eye Contact: Minimally Irritating (Rabbit)

Skin Contact: Slightly Irritating (Rabbit)

Skin Sensitization: Not a Sensitizer (Guinea Pig)

### Reproductive/Developmental Effects

Fludioxonil: Delayed development at doses causing maternal toxicity.

Mefenoxam: None observed.

### Chronic/Subchronic Toxicity Studies

Fludioxonil: Liver and kidney toxicity at high dose levels.

Mefenoxam: Liver effects at high dose levels.

#### Carcinogenicity

Fludioxonil: Marginal increase (7%) of liver tumors (female, rats: 3,000 ppm); Within historical control range (1 to 10%).

Mefenoxam: None observed.

#### Other Toxicity Information

None

#### Toxicity of Other Components

Ethylene Glycol (<= 6%)

Test results reported in Section 11 for the final product take into account any hazards related to the ethylene glycol in the formulation.

#### Target Organs

##### Active Ingredients

Fludioxonil: Liver, kidney

Mefenoxam: Liver

##### Inert Ingredients

Ethylene Glycol: Not Applicable

## 12. ECOLOGICAL INFORMATION

#### Summary of Effects

Fludioxonil:

Practically nontoxic to birds and bees, but highly toxic to aquatic invertebrates and fish.

Mefenoxam:

Practically non-toxic to aquatic organisms and wildlife.

#### Eco-Acute Toxicity

Mefenoxam: Bees LC50/EC50 > 25 ug/bee  
Invertebrates (Water Flea) LC50/EC50 > 113 ppm  
Fish (Trout) LC50/EC50 > 121 ppm  
Birds (8-day dietary - Bobwhite Quail) LC50/EC50 5,620 ppm

Fludioxonil: Bees LC50/EC50 > 25 ug/bee  
Invertebrates (Water Flea) LC50/EC50 0.90 ppm  
Fish (Trout) LC50/EC50 0.47 ppm  
Fish (Bluegill) LC50/EC50 0.74 ppm  
Birds (8-day dietary - Bobwhite Quail) LC50/EC50 > 5,200 ppm  
Birds (8-day dietary - Mallard Duck) LC50/EC50 > 5,200 ppm

#### Eco-Chronic Toxicity

Mefenoxam: Not Available

Fludioxonil: Fish (Fathead minnow) Early Life Stage MATC 0.028 mg/l  
Invertebrate (Daphnia Magna) Life Cycle MATC 0.025 mg/l  
Mallard Reproduction NOEC 700 ppm  
Bobwhite Reproduction NOEC 125 ppm

#### Environmental Fate

Fludioxonil:

No data available for the formulation. The information presented here is for the active ingredient, fludioxonil. Does not bioaccumulate. Persistent in soil. Stable in water. Low mobility in soil. Sinks in water (after 24 h).

Mefenoxam:

No data available for the formulation. The information presented here is for the active ingredient, mefenoxam.  
Does not bioaccumulate. Not persistent in soil or water. Moderate mobility in soil. Mixes/sinks (after 24 h).

### 13. DISPOSAL CONSIDERATIONS

#### Disposal

Do not reuse product containers. Dispose of product containers, waste containers, and residues according to local, state, and federal health and environmental regulations.

Characteristic Waste: Not Applicable

Listed Waste: Not Applicable

### 14. TRANSPORT INFORMATION

#### DOT Classification

Not regulated.

#### B/L Freight Classification

Fungicides, NOIBN, o/t poison

#### Comments

None.

### 15. REGULATORY INFORMATION

#### EPCRA SARA Title III Classification

Section 311/312 Hazard Classes: Acute Health Hazard

Section 313 Toxic Chemicals: Ethylene Glycol (<= 6%) (CAS No. 107-21-1)

#### California Proposition 65

Not Applicable

#### CERCLA/SARA 302 Reportable Quantity (RQ)

Report product spills > 9,400 gal. (based on ethylene glycol [RQ = 5,000 lbs.] content in the formulation)

#### RCRA Hazardous Waste Classification (40 CFR 261)

Not Applicable

#### TSCA Status

TSCA R & D Exempt

### 16. OTHER INFORMATION

#### NFPA Hazard Ratings

Health: 1  
Flammability: 1  
Instability: 0

#### HMIS Hazard Ratings

Health: 1  
Flammability: 1  
Reactivity: 0

0	Minimal
1	Slight
2	Moderate
3	Serious
4	Extreme

For non-emergency questions about this product call:

1-800-334-9481

Original Issued Date: 08/14/1998

Revision Date: 03/02/2004

Replaces: 04/07/2003

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein.

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End of MSDS