

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: **APRON MAXX RTA FUNGICIDE** Product No.: A12033B
 EPA Signal Word: Caution
 Active Ingredient(%): Fludioxonil (0.77%) 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 (1.14%) 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): 100-946 **Section(s) Revised: All sections**

2. COMPOSITION/INFORMATION ON INGREDIENTS

Material	OSHA PEL	ACGIH TLV	Other	NTP/IARC/OSHA Carcinogen
Glycerin	15 mg/m ³ TWA (total dust); 5 mg/m ³ TWA (respirable)	10 mg/m ³ TWA (total dust)	Not Established	No
Mefenoxam (1.14%)	Not Established	Not Established	Not Established	No
Fludioxonil (0.77%)	Not Established	Not Established	Not Established	No

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.

3. HAZARDS IDENTIFICATION
Symptoms of Acute Exposure

May cause eye irritation.

Hazardous Decomposition Products

Can decompose at high temperatures forming toxic gases.

Physical Properties

Appearance: Blue liquid

Odor: Water-based 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):	>210°F	
Flammable Limits (% in Air):	Lower: % Not Applicable	Upper: % Not Applicable
Autoignition Temperature:	Not Available	
Flammability:	Not Flammable	

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 it from spreading, contaminating soil, or entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions outlined in Section 8. If a solid, sweep up material and place in a compatible disposal container. If a liquid, 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. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

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: Blue liquid
 Odor: Water-based paint
 Melting Point: Not Applicable
 Boiling Point: Not Available
 Specific Gravity/Density: 1.04 g/ml @ 68°F (20°C)
 pH: 5-7(1% solution in H₂O)

Solubility in H₂O

Fludioxonil: 1.8mg/l @ 77°F (25°C)
 Mefenoxam: 26g/l @ 77°F (25°C)

Vapor Pressure

Fludioxonil: 2.9 x 10⁽⁻⁹⁾ mmHg @ 77°F (25°C)
 Mefenoxam: 2.5 x 10⁽⁻⁵⁾ 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: Practically Non-Toxic
 Oral (LD50 Rat) : > 5,050 mg/kg body weight

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

Inhalation: Practically Non-Toxic
 Inhalation (LC50 Rat) : > 3.04 mg/l air - 4 hours

Eye Contact: Mildly Irritating (Rabbit)
 Skin Contact: Non-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 kidneys toxicity 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

Glycerin

Repeated or prolonged exposure to concentrated solutions may result in dermatitis.

Target Organs

Active Ingredients

Fludioxonil: Liver, kidney

Mefenoxam: Liver

Inert Ingredients

Glycerin: Skin

12. ECOLOGICAL INFORMATION

Summary of Effects

Fludioxonil:

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

Mefenoxam:

Practically non-toxic to birds, invertebrates and fish.

Eco-Acute Toxicity

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

Fludioxonil: Rainbow Trout 96-hour LC50 0.47 mg/l
Bluegill Sunfish 96-hour LC50 0.74 mg/l
Daphnia magna 48-hour LC50 0.90 mg/l
Bobwhite Oral LD50 >2,000 mg/kg
Mallard Oral LD50 >2,000 mg/kg
Bobwhite 8-day Dietary LC50 >5,200 ppm
Mallard 8-day Dietary LC50 >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. A thorough review of environmental information is not possible in this document.
Stable in sterile water, in the dark at pH 5, 7 and 9. Degrades rapidly in the light at pH 7 (t1/2 ~ <10 d). Degrades in aerobic soil more rapidly in the light (t1/2 = 1 d), than in the dark (t1/2 ~ 6 mo). Stable in soil under anaerobic

conditions. Low to slight mobility with various soils (Koc 991-2440). Some bioaccumulation (BCF= 366X, whole fish).

Mefenoxam:

No data available for the formulation. The information presented here is for the active ingredient, mefenoxam. A thorough review of environmental information is not possible in this document.

Based on the metalaxyl database, mefenoxam would not be expected to degrade in water. Degrades moderately in soil under aerobic conditions (t1/2 ~ 70 d). Mobility classified as very high to low in various soils (Koc 20 to 1299).

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 by DOT.

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: Not Applicable

California Proposition 65

Not Applicable

CERCLA/SARA 302 Reportable Quantity (RQ)

None

RCRA Hazardous Waste Classification (40 CFR 261)

Not Applicable

TSCA Status

Exempt from TSCA, subject to FIFRA

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: 03/03/2000

Revision Date: 09/26/2002

Replaces: 10/19/2000

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.

RSVP# : SCP-955-00223C

End of MSDS