

**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:	<b>CRUISER EXTREME</b>	Product No.:	A14115A
EPA Signal Word:	Caution		
Active Ingredient(%):	Azoxystrobin (0.5%)	CAS No.:	131860-33-8
Chemical Name:	Methyl (E)-2-{2-[6-(2-cyanophenoxy)pyrimidin-4-yloxy]phenyl}-3-methoxyacrylate		
Chemical Class:	A beta-methoxyacrylate fungicide		
Active Ingredient(%):	Fludioxonil (1.25%)	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 (1.0%)	CAS No.:	70630-17-0
Chemical Name:	(R,S)-2-[(2,6-dimethylphenyl)-methoxyacetyl-amino]-propionic acid methyl ester		
Chemical Class:	Phenylamide Fungicide		
Active Ingredient(%):	Thiamethoxam (25.0%)	CAS No.:	153719-23-4
Chemical Name:	4H-1,3,5-Oxadiazin-4-imine,3-[(2-chloro-5-thiazolyl) methyl]tetrahydro-5-methyl-N-nitro-		
Chemical Class:	Neonicotinoid Insecticide		

EPA Registration Number(s): 100-1208

**Section(s) Revised: 1, 2**
**2. COMPOSITION/INFORMATION ON INGREDIENTS**

Material	OSHA PEL	ACGIH TLV	Other	NTP/IARC/OSHA Carcinogen
Glycerin	15 mg/m <sup>3</sup> TWA (total); 5 mg/m <sup>3</sup> TWA (respirable)	10 mg/m <sup>3</sup> TWA (total)	Not Established	No
Talc	20 mppcf (containing <1% quartz) TWA	2 mg/m <sup>3</sup> (respirable; <1% crystalline silica) TWA	2 mg/m <sup>3</sup> (respirable) TWA	IARC Group 3 **
Azoxystrobin (0.5%)	Not Established	Not Established	2 mg/m <sup>3</sup> TWA ***	No
Mefenoxam (1.0%)	Not Established	Not Established	10 mg/m <sup>3</sup> TWA***	No
Fludioxonil (1.25%)	Not Established	Not Established	10 mg/m <sup>3</sup> TWA***	No
Thiamethoxam (25.0%)	Not Established	Not Established	3 mg/m <sup>3</sup> TWA***	No

\*\* recommended by NIOSH

\*\*\* 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

May cause mild eye and skin irritation.

### Hazardous Decomposition Products

Can decompose at high temperatures forming toxic gases.

### Physical Properties

Appearance: Beige liquid

Odor: Aromatic

### 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): > 212°F
- Flammable Limits (% in Air): Lower: % Not Applicable Upper: % Not Applicable
- Autoignition Temperature: 815 °F
- 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: A respirator is not normally required when handling this substance. Use effective engineering controls to comply with occupational exposure limits.

In case of emergency spills, use a NIOSH approved respirator with any N, R, P or HE filter.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Beige liquid
Odor:	Aromatic
Melting Point:	Not Applicable
Boiling Point:	Not Available
Specific Gravity/Density:	1.23 g/ml
pH:	7.4 @ 77°F (25°C)

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

Azoxystrobin :	6 mg/l in water @ 68°F (20°C)
Fludioxonil:	1.8 mg/l @ 77°F (25°C)
Mefenoxam:	26 g/l @ 77°F (25°C)
Thiamethoxam:	4.1 g/l @ 77°F (25°C)

### Vapor Pressure

Azoxystrobin :	8.25 x 10 <sup>(-13)</sup> mmHg @ 68°F(20°C)
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)
Thiamethoxam:	2 x 10 <sup>(-11)</sup> mmHg @ 68°F (20°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) : > 5,000 mg/kg body weight
- Dermal:

	<u>Practically Non-Toxic</u>
	Dermal (LD50 Rat) : > 5,050 mg/kg body weight
Inhalation:	<u>Not Available</u>
	Inhalation (LC50 Rat) : Not Available
Eye Contact:	Minimally Irritating (Rabbit)
Skin Contact:	Practically Non-Irritating (Rabbit)
Skin Sensitization:	Not Available

#### Reproductive/Developmental Effects

Azoxystrobin :	Shows weak chromosomal damage in mammalian cells at cytotoxic levels. Negative in whole animal assays for chromosomal and DNA damage at high dosages (> or = 2,000 mg/kg). In rabbits, no effect was observed up to the highest dose level (500 mg/kg/day). In rats, developmental effects were seen only at maternally toxic doses (100 mg/kg/day).
Fludioxonil:	Delayed development at doses causing maternal toxicity.
Mefenoxam:	None observed.
Thiamethoxam:	Developmental: Not teratogenic. Developmental delays at maternally toxic doses. Reproductive: No biologically important reproductive effects. Minor testis effects at high doses with no effect on reproduction.

#### Chronic/Subchronic Toxicity Studies

Azoxystrobin :	In a rat 90-day feeding study, liver toxicity was observed at 2,000 ppm. This was manifest as gross distension of the bile duct, increased numbers of lining cells and inflammation of the duct. No toxicologically significant effects were seen in repeat dose dog studies. Data reviews do not indicate any potential for endocrine disruption. There is no evidence of neurotoxicity in any of the studies conducted with azoxystrobin.
Fludioxonil:	Liver and kidney toxicity at high dose levels.
Mefenoxam:	Liver effects at high dose levels.
Thiamethoxam:	Subchronic: Predominantly liver and kidney effects at high doses. Not neurotoxic. Chronic: Predominantly liver and kidney effects at high doses. Acute: Transient clinical signs at high doses. No changes to nervous tissue.

#### Carcinogenicity

Azoxystrobin :	No carcinogenic effects observed in rats or mice at doses up to the maximum tolerated dose.
Fludioxonil:	Marginal increase (7%) of liver tumors (female, rats: 3,000 ppm); Within historical control range (1 to 10%).
Mefenoxam:	None observed.
Thiamethoxam:	Liver tumors at high doses noted in mice that are not relevant to humans. No treatment-related tumors in rats.

#### Other Toxicity Information

None

#### Toxicity of Other Components

Glycerin

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

Talc

Limited potential for respiratory disease.

#### Target Organs

##### Active Ingredients

Azoxystrobin :	Liver
Fludioxonil:	Liver, kidney
Mefenoxam:	Liver
Thiamethoxam:	Liver, kidney

##### Inert Ingredients

Glycerin: Skin  
Talc: Respiratory tract

## 12. ECOLOGICAL INFORMATION

### Summary of Effects

Azoxystrobin :

Highly toxic to fish and invertebrates. Practically non-toxic to birds and bees.

Fludioxonil:

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

Mefenoxam:

Practically non-toxic to aquatic organisms and wildlife.

Thiamethoxam:

Practically non-toxic to fish, invertebrates and birds. Highly toxic to bees.

### Eco-Acute Toxicity

Azoxystrobin :

Bees LC50/EC50 >200 ug/bee

Invertebrates (Water Flea) LC50/EC50 0.259 ppm

Fish (Trout) LC50/EC50 0.47 ppm

Fish (Bluegill) LC50/EC50 1.1 ppm

Birds (8-day dietary - Bobwhite Quail) LC50/EC50 > 5,200 ppm

Birds (8-day dietary - Mallard Duck) LC50/EC50 > 5,200 ppm

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

Thiamethoxam:

Bees LC50/EC50 0.024 ug/bee

Invertebrates (Water Flea) LC50/EC50 > 100 ppm

Fish (Trout) LC50/EC50 > 100 ppm

Fish (Bluegill) LC50/EC50 > 114 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

Azoxystrobin :

Not Available

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

Thiamethoxam:

Not Available

### Environmental Fate

Azoxystrobin :

The information presented here is for the active ingredient, azoxystrobin.

Low bioaccumulation potential. Not persistent in soil. Stable in water. Moderate mobility in soil. Sinks in water (after 24 h).

**Fludioxonil:**

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:**

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).

**Thiamethoxam:**

The information presented here is for the active ingredient, thiamethoxam.

Not persistent in soil. Stable in water. Moderate mobility in soil. Floats in water (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

Ground Transport - NAFTA

Not regulated.

B/L Freight Classification

Insecticides or Fungicides; Agricultural, N.O.S.

Comments

Water Transport - International

Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. (1H-Pyrrole-3-Carbonitrile, 4-(2,2-Difluoro-1,3-Benzodioxol-4-yl)-, Marine Pollutant

Hazard Class or Division: Class 9

Identification Number: UN 3082

Packing Group: PG III

Air Transport - NAFTA

Proper Shipping Name: Not regulated.

Air Transport - International

Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. (1H-Pyrrole-3-Carbonitrile, 4-(2,2-Difluoro-1,3-Benzodioxol-4-yl)-

Hazard Class or Division: Class 9

Identification Number: UN 3082

Packing Group: PG III

Packing Instructions: 914

Packaging Limitations: Inner packages over 5 liters and single packages over 450 liters cannot be shipped by aircraft.

### 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: 10/12/2004

Revision Date: 05/06/2005

Replaces: 03/31/2005

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# : Not Applicable

End of MSDS