

**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: **ENDEAVOR** Product No.: A9364A  
 EPA Signal Word: Caution  
 Active Ingredient(%): Pymetrozine (50.0%) CAS No.: 123312-89-0  
 Chemical Name: 1,2,4-Triazin-3(2H)-one, 4,5-dihydro-6-methyl-4-[(3-pyridinylmethylene)amino]-  
 Chemical Class: Pyridine Azomethine Insecticide  
 EPA Registration Number(s): 100-913 **Section(s) Revised: 8**

**2. COMPOSITION/INFORMATION ON INGREDIENTS**

Material	OSHA PEL	ACGIH TLV	Other	NTP/IARC/OSHA Carcinogen
Diatomaceous Earth	80 mg/m <sup>3</sup> /%SiO <sub>2</sub> (20 mpcf) TWA	10 (inhalable);3 mg/m <sup>3</sup> (respirable) TWA	6 mg/m <sup>3</sup> TWA**	No
Crystalline Silica, Quartz	10 mg/m <sup>3</sup> /%SiO <sub>2</sub> +2) (respirable dust)	0.05 mg/m <sup>3</sup> (respirable silica)	0.05 mg/m <sup>3</sup> (respirable dust)**	IARC Group 2A
Sodium Sulfate	Not Established	Not Established	Not Established	No
Pymetrozine (50.0%)	Not Established	Not Established	1mg/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

Causes eye, skin and respiratory passage irritation.

Hazardous Decomposition Products

Can decompose at high temperatures forming toxic gases.

Physical Properties

Appearance: Beige to brown granules

Odor: Weak

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): Not Applicable

Flammable Limits (% in Air): Lower: % Not Applicable Upper: % Not Applicable

Autoignition Temperature: 806 °F

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 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. Sweep up material and place in a 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.

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 to brown granules  
Odor: Weak  
Melting Point: Not Available  
Boiling Point: Not Applicable  
Specific Gravity/Density: 0.4 - 0.6 g/cm<sup>3</sup>  
pH: 7 - 11 (1% in deionized water)

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

Pymetrozine : 270 mg/l @ 68°F (20°C)

### Vapor Pressure

Pymetrozine : 7.3 x 10<sup>(-10)</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: Slightly Toxic  
Dermal (LD50 Rat) : > 2,000 mg/kg body weight  
Inhalation: Practically Non-Toxic  
Inhalation (LC50 Rat) : > 3.09 mg/l air - 4 hours  
Eye Contact: Slightly Irritating (Rabbit)  
Skin Contact: Slightly Irritating (Rabbit)  
Skin Sensitization: Not a Sensitizer (Guinea Pig)

### Reproductive/Developmental Effects

Pymetrozine : Reproductive: Developmentally toxic (pup weight gain reduction) at high doses.  
Teratogenic: Negative; developmental effects (skeletal abnormalities) seen only at maternally toxic doses.

### Chronic/Subchronic Toxicity Studies

Pymetrozine : Liver, spleen, thymus, kidney, muscle, digestive tract, thyroids, and blood effects at high doses

### Carcinogenicity

Pymetrozine : Increased liver tumors at high doses.  
Mutagenic potential: None observed.

### Other Toxicity Information

None

## Toxicity of Other Components

### Diatomaceous Earth

The carrier in this product is naturally occurring diatomaceous earth. Natural diatomaceous earth contains a small percentage of naturally occurring crystalline silica, which is considered a probable human carcinogen. Chronic inhalation exposure to crystalline silica is known to cause silicosis and pulmonary fibrosis in humans. The amount of crystalline silica in this product is minimal and the potential for overexposure in manufacturing operations is low.

### Sodium Sulfate

Exposure may cause irritation of the nose, throat and lungs.

Test results reported in Section 11 for the final product take into account other acute hazards related to the sodium sulfate in the formulation.

## Target Organs

### Active Ingredients

Pymetrozine : Liver, spleen, thymus, kidney, muscle, digestive tract, blood, thyroids, eye

### Inert Ingredients

Diatomaceous Earth: Respiratory tract

Sodium Sulfate: Not Applicable

## **12. ECOLOGICAL INFORMATION**

### Summary of Effects

Pymetrozine :

Practically nontoxic to birds, aquatic invertebrates and fish

### Eco-Acute Toxicity

Pymetrozine : Bees LC50/EC50 > 117 ug/bee  
Invertebrates (Water Flea) LC50/EC50 87 ppm  
Fish (Trout) LC50/EC50 > 128 ppm  
Fish (Bluegill) LC50/EC50 > 134 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

Pymetrozine : Not Available

### Environmental Fate

Pymetrozine :

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

Persistent in soil. Stable in water. Low mobility in soil. Sinks 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, NOI, 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: 04/07/1999

Revision Date: 07/26/2005

Replaces: 05/05/2004

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