



MATERIAL SAFETY DATA SHEET

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

In Case of Emergency, Call

1-800-888-8372

1. CHEMICAL IDENTIFICATION

Product Name: **ENDEAVOR** Product No.: A9364A
EPA Signal Word: Caution
Active Ingredient(%): Pymetrozine (50%) 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

2. COMPOSITION/INFORMATION ON INGREDIENTS

Material	OSHA PEL	ACGIH TLV	Other	NTP/IARC/OSHA Carcinogen
Surfactant	Not Established	Not Established	15 mg/m ³ (Total Dust)*	No
Sodium Sulfite	Not Established	Not Established	Not Established	IARC, 3
Sodium Sulfate	Not Established	Not Established	15 mg/m ³ (Total Dust)	No
Pergopak M	Not Established	Not Established	Not Established	No
Nuisance Dusts (Particulates N.O.C.)	15 mg/m ³ (Total Dust)	10 mg/m ³ (Total Dust)	Not Established	No
Wetting Agent	Not Established	Not Established	Not Established	No
Carrier	80 mg/m ³ / %SiO ₂	10 mg/m ³ (Inhalable);3 mg/m ³ (Respirable)	Not Established	IARC, 2A
Pymetrozine (50%)	Not Established	Not Established	Not Established	No

* recommended by manufacturer

3. HAZARDS IDENTIFICATION

Symptoms of Acute Exposure

Exposure may cause eye, skin or upper respiratory tract irritation.

Hazardous Decomposition Products

None Known

Physical Properties

Appearance: Beige to Brown Granules

Odor: Slight

Unusual Fire, Explosion and Reactivity Hazards

None Known

4. FIRST AID MEASURES

If poisoning is suspected, immediately contact a physician, the nearest hospital, or the nearest Poison Control Center. Tell the person contacted the complete product name, and the type and amount of exposure. Describe any symptoms and follow the advice given.

Ingestion: If victim is fully conscious, give a large quantity of water to drink and induce vomiting. Never give anything by mouth to an unconscious person.

Eye Contact: Immediately rinse eyes with a large amount of running water. Hold eye lids apart to rinse the entire surface of the eyes and lids. Do not apply any medicating agents except on the advice of a physician.

Skin Contact: Wash with plenty of soap and water, including hair and under fingernails. Do not apply any medicating agents except on the advice of a physician. Remove contaminated clothing and decontaminate prior to use.

Inhalation: Move victim from contaminated area to fresh air. Apply artificial respiration if necessary.

Notes to Physician

There is no specific antidote if this product is ingested.

If a large amount has been ingested and emesis is inadequate, lavage stomach.

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: %; Upper: % Not Applicable
Autoignition Temperature: 430 °C
Flammability: Not Flammable

Unusual Fire, Explosion and Reactivity Hazards

None Known

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.

6. ACCIDENTAL RELEASE MEASURES

In Case of Spill or Leak

Wear chemical safety glasses with side shields or chemical goggles, rubber gloves, rubber boots, long-sleeved shirt, long pants, head covering, and use a particulate filter, NIOSH approved per 42 CFR Part 84. Select N or R or P type as appropriate for the oil characteristics of any other air contaminants present. Filter efficiency may range from 95 - 99.97% as appropriate for the size distribution of dusts present. For small spills, sweep up, keeping dust to a minimum, and place in an approved chemical container. Wash the spill area with water containing a strong detergent, absorb with pet litter or other absorbent material, sweep up and place in a chemical container. Seal the container and handle in an approved manner. Flush the area with water to remove any residue. Do not allow wash water to contaminate water supplies.

7. HANDLING AND STORAGE

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

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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

FOR COMMERCIAL APPLICATIONS AND 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. Always wash thoroughly after handling.

- Eye Contact: To avoid eye contact, wear safety glasses with side shields or chemical goggles.
- Skin Contact: To avoid skin contact, wear rubber gloves, rubber boots, long-sleeved shirt, long pants and a head covering.
- Inhalation: To avoid breathing dust, use a particulate filter, NIOSH approved per 42 CFR Part 84. Select N or R or P type as appropriate for the oil characteristics of any other air contaminants present. Filter efficiency may range from 95 - 99.97% as appropriate for the size distribution of dusts present.

9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance: Beige to Brown Granules
- Odor: Slight
- Melting Point: Not Available
- Boiling Point: Not Applicable
- Specific Gravity/Density: 0.40 g/cm³ @ 25°C
- pH: 7-11

Solubility in H₂O

Pymetrozine : 270.000 mg/L @ 20°C

Vapor Pressure

Pymetrozine : 9.70E-08 Pa @ 20°C

10. STABILITY AND REACTIVITY

Reactivity

- Stability: Stable Under Standard Conditions
- Hazardous Polymerization: Will Not Occur
- Conditions to Avoid: None Known

Hazardous Decomposition Products

None Known

11. TOXICOLOGICAL INFORMATION

Acute Toxicity/Irritation Studies

- 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: Slightly 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)

Mutagenic Potential

Pymetrozine : None observed

Reproductive Hazard Potential

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

Chronic/Subchronic Toxicity Studies

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

Carcinogenic Potential

Pymetrozine : Increased liver tumors at high doses

Other Toxicity Information

Not Available

Toxicity of Other Components

Carrier

OSHA requires the hazards of the components of mixtures be shown on a Material Safety Data Sheet. The carrier in this product is naturally occurring diatomaceous earth. Natural diatomaceous earth contains up to 7% 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. Experimental animals exposed to crystalline silica developed respiratory tract cancers.

Pergopak M

Not Available

Sodium Sulfate

Exposure may cause irritation of the nose, throat and lungs. Repeated or prolonged contact to the skin results in dermatitis. May cause mild irritation to the eyes.

Surfactant

Exposure can result in eye, skin and respiratory tract irritation.

Wetting Agent

Exposure to skin and eyes may result in irritation.

Target Organs

Active Ingredients

Pymetrozine : Liver, Spleen, Thymus, Kidneys, Muscle, Digestive Tract, Blood, Thyroids, and Eyes

Inert Ingredients

Carrier : Respiratory Tract
Pergopak M : Not Available
Sodium Sulfate : Respiratory Tract, Skin and Eyes
Surfactant : Eyes, Skin and Respiratory Tract
Wetting Agent : None Known

12. ECOLOGICAL INFORMATION

Summary of Effects

Pymetrozine :

Practically nontoxic to birds, aquatic invertebrates and fish

Eco-Acute Toxicity

Pymetrozine : Rainbow Trout 96-hour LC50 >100 mg/L
Bluegill Sunfish 96-hour LC50 >100 mg/L
Daphnia magna 48-hour LC50 87 mg/L
Bobwhite Oral LD50 >2,000 mg/kg
Mallard Oral LD50 >2,000 mg/kg

Eco-Chronic Toxicity

Pymetrozine : Not Available

Environmental Fate

Pymetrozine :

No data available for the formulation. The information presented here is for the active ingredient, pymetrozine. A thorough review of environmental information is not possible in this document. For additional information call the toll free number listed in Section 16.

ENVIRONMENTAL PERSISTENCE/MOBILITY:

Degrades in water, in the dark more rapidly at pH 5 (t_{1/2} ~ 5-13.2 d) than at pH 7 and 9 (T_{1/2} ~ >1 yr), but more rapidly in the light at pH 7 (T_{1/2} ~ 4-6 d) than in the dark. In soil, degrades slowly in the dark under aerobic, anaerobic and aquatic conditions (T_{1/2} ~ 3 to 5 mo). Low mobility to immobile in various soils (K_{oc} = 1394 to 7875).

13. DISPOSAL CONSIDERATION

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

Insecticides, NOIBN, o/t poison

International Transportation

Not Applicable

15. REGULATORY INFORMATION

SARA Title III Classification

Section 311/312: Acute Health Hazard
Chronic Health Hazard

Section 313 chemical(s): Not Applicable

Proposition 65

Not Applicable

CERCLA Reportable Quantity (RQ)

None

RCRA Classification

Not Applicable

TSCA Status

Exempt from TSCA, subject to FIFRA

16. OTHER INFORMATION

NFPA Hazard Ratings

Health: 1
Flammability: 1
Reactivity: 0

0	Least
1	Slight
2	Moderate
3	High
4	Severe

Questions concerning the safe handling of the product should be referred to:

1-800-334-9481

Issued Date: 04/07/1999

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Supersedes: 09/09/1999

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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