1. PRODUCT IDENTIFICATION

Product Name: ENDEAVOR

EPA Signal Word: Caution

Active Ingredient(%): Pymetrozine (50.0%)

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

<table>
<thead>
<tr>
<th>Material</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
<th>Other</th>
<th>NTP/IARC/OSHA Carcinogen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diatomaceous Earth</td>
<td>80 mg/m³ SiO2 (20 mppcf) TWA</td>
<td>10 (inhalable); 3 mg/m³ (respirable) TWA</td>
<td>6 mg/m³ TWA**</td>
<td>No</td>
</tr>
<tr>
<td>Crystalline Silica, Quartz</td>
<td>10 mg/m³ SiO2+2 (respirable dust)</td>
<td>0.05 mg/m³ (respirable silica)</td>
<td>0.05 mg/m³ (respirable dust)**</td>
<td>IARC Group 2A</td>
</tr>
<tr>
<td>Sodium Sulfate</td>
<td>Not Established</td>
<td>Not Established</td>
<td>15 mg/m³ (total dust) TWA</td>
<td>No</td>
</tr>
<tr>
<td>Pymetrozine (50.0%)</td>
<td>Not Established</td>
<td>Not Established</td>
<td>1 mg/m³ TWA ***</td>
<td>No</td>
</tr>
</tbody>
</table>

** 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.
5. FIRE FIGHTING MEASURES

Fire and Explosion

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash Point (Test Method):</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Flammable Limits (% in Air):</td>
<td>Lower: % Not Applicable</td>
</tr>
<tr>
<td></td>
<td>Upper: % Not Applicable</td>
</tr>
<tr>
<td>Autoignition Temperature:</td>
<td>806 °F</td>
</tr>
<tr>
<td>Flammability:</td>
<td>Not Flammable</td>
</tr>
</tbody>
</table>

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.
TOXICOLOGICAL INFORMATION

Acute Toxicity/Irritation Studies (Finished Product)
Reproductive/Developmental Effects
Chronic/Subchronic Toxicity 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:
- Practically Non-Toxic
- Inhalation (LC50 Rat) : > 3.09 mg/l air - 4 hours

Eye Contact:
- Slightly Irritating (Rabbit)

Skin Contact:
- Practically Non-Toxic
- Slightly Irritating (Rabbit)

Skin Sensitization:
- Not a Sensitizer (Guinea Pig)

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/cm³
pH: 7 - 11 (1% in deionized water)

Solubility in H₂O
- Pymetrozine : 270 mg/l @ 68°F (20°C)

Vapor Pressure
- Pymetrozine : 7.3 x 10(-10) 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)

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.

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, thymoids, 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

Product Name: ENDEAVOR
14. TRANSPORT INFORMATION

DOT Classification
Not regulated.

B/L Freight Classification
Insecticides, 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

<table>
<thead>
<tr>
<th>NFPA Hazard Ratings</th>
<th>HMIS Hazard Ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health: 1</td>
<td>Health: 1</td>
</tr>
<tr>
<td>Flammability: 1</td>
<td>Flammability: 1</td>
</tr>
<tr>
<td>Instability: 0</td>
<td>Reactivity: 0</td>
</tr>
</tbody>
</table>

For non-emergency questions about this product call:
1-800-334-9481

Original Issued Date: 04/07/1999
Revision Date: 05/05/2004
Replaces: 10/31/2002

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-955-00188E

End of MSDS