MATERIAL SAFETY DATA SHEET

ZEAL™ MITICIDE

This Material Safety Data Sheet (MSDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-APPROVED PRODUCT LABELING (attached to and accompanying the product container). This MSDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course.

Use, storage and disposal of pesticide products is regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling. All necessary and appropriate precautionary, use, and storage, and disposal information is set forth on that labeling. It is a violation of federal law to use a pesticide product in any manner not prescribed on the EPA-approved label.

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: ZEAL™ Miticide

NC NUMBER(S): 1289

ITEM: 60765

EPA REGISTRATION NUMBER: 59639-123

SYNONYM(S): V-1283 72 WDG; Secure Miticide

MANUFACTURER

VALENT USA CORPORATION

P.O. Box 3361

1600 Riviera Avenue, Suite 200

Walnut Creek, CA 94596-8025

EMERGENCY TELEPHONE NUMBERS

VALENT USA CORPORATION

MANUFACTURER

(800) 682-5368

EMERGENCY OVERVIEW

LIGHT EMERGENCY OR SPILL (24 hr): 1-800-892-0099

TRANSPORTATION (24 hr): CHEMTREC 1-800-424-9300 or (202) 463-7616

PRODUCT INFORMATION

AGRICULTURAL PRODUCTS: (800) 682-5368

PROFESSIONAL PRODUCTS: (800) 898-2536

The current MSDS is available through our website or by calling the product information numbers listed above. (www.valent.com)

2. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Weight/Percent</th>
<th>ACGIH Exposure Limits</th>
<th>OSHA Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Etoxazole (2-(2,6-difluorophenyl)-4-(1,1-dimethylallyl)-5-dimethylethyl)-2-(4-[4-(1,1-dimethylallyl)-5-dimethylethyl]oxazol))</td>
<td>70-75</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Particulates Not Otherwise Classified ** (No CAS)</td>
<td>0-100</td>
<td>10 mg/m³ TWA (inhalable particulate); 3 mg/m³ TWA (respirable fraction)</td>
<td>15 mg/m³ TWA (total dust); 5 mg/m³ TWA (respirable fraction)</td>
</tr>
<tr>
<td>Others ** (No CAS)</td>
<td>25-30</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

** Active Ingredient
** Other ingredients, which are maintained as trade secrets, and whose substances other than an active ingredient contained in this product. Some of these may be hazardous, but their identity is withheld because they are considered trade secrets. The hazards associated with the other ingredients are addressed in this document. Specific information on other ingredients for the management of exposures, spills, or safety assessments can be obtained by a treating physician or nurse by calling 1-800-892-0099 at any time.

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

CAUTION

- May cause skin, eye and respiratory irritation.
- Avoid breathing dust or spray mist.
- Do not get in eyes, on skin or on clothing.
- Keep out of reach of children.

POTENTIAL HEALTH EFFECTS

Acute Toxicity (Primary Routes of Exposure)

Signs and Symptoms of Systemic Effects: Signs of toxicity observed in test animals exposed to high doses of Etoxazole Technical included abnormal gait, decreased respiratory rate, lethargy, vomiting, decreased body weight and reduced food consumption.

Acute Eye Contact: This product can cause brief and/or minor eye irritation. The expected adverse health effects resulting from an exposure may include redness and possible swelling.

Acute Skin Contact: This product can cause brief and/or minor irritation. The expected adverse health effects resulting from an exposure may include redness and possibly some minor swelling. This product is minimally toxic when absorbed through the skin. This product is not expected to cause allergic skin reactions.

Acute Ingestion: This product is minimally toxic when ingested.

Chronic Toxicity (including cancer): Repeated high doses of Etoxazole Technical in laboratory animals produced liver toxicity, but did not produce cancer.

Developmental Toxicity: The products of development were produced in animals exposed to Etoxazole Technical at maternally toxic dose levels.

Reproductive Toxicity: Based on the results of animal studies. Etoxazole Technical is not expected to cause adverse reproductive effects.

Potentially Aggravated Medical Conditions: Individuals with preexisting diseases of the liver may have increased susceptibility to the toxicity of excessive exposures.

For complete discussion of the toxicology data from which this evaluation was made, refer to Section 11. For Regulatory Information, refer to Section 15.

4. FIRST AID MEASURES

EMERGENCY NUMBER (800) 892-0099

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-892-0099 for emergency medical treatment information.

EYE CONTACT: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

SKIN CONTACT: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. If skin irritation or rash occurs, get medical advice.

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INGESTION: Call a poison control center or doctor immediately for treatment advice. Get medical advice if you develop a headache, dizziness, nausea, vomiting, loss of appetite, or sleepiness.

INHALATION: Get medical advice if there is breathing difficulty.

REMEDIES FOR EXPOSURE: Keep patient at rest until medical help arrives.

5. FIRE FIGHTING MEASURES

FLASH POINT: Not applicable

AUTOIGNITION: No data available

EXTINGUISHING MEDIA: Water fog, carbon dioxide, foam, dry chemical

FLAMMABLE LIMITS IN AIR - LOWER (%): Not applicable

FLAMMABLE LIMITS IN AIR - UPPER (%): Not applicable

NFPA RATING:

Flammability: 1

Reactivity: 0

Special: None (Least-0, Slight-1, Moderate-2, High-3, Extreme-4). These values are used according to professional judgment. Values were not available in the guidelines or published evaluations prepared by the National Fire Protection Association.

American National Standard Institute.

6. ACCIDENTAL RELEASE MEASURES

VALENT EMERGENCY PHONE NUMBER: (800) 892-0099

CHEMTREC EMERGENCY PHONE NUMBER: (800) 424-9300

IN CASE OF SPILL OR LEAK:

HAZARDS IN COMBUSTION PRODUCTS: Normal combustion forms carbon dioxide, water vapor and may produce: Oxides of nitrogen. Combustion may produce toxic: Fluorine compounds. Incomplete combustion can produce carbon monoxide.

7. HANDLING AND STORAGE

END USER MUST READ AND OBSERVE ALL PRECAUTIONS ON PRODUCT LABEL.

Keep pesticide in original container. Do not store or transport in containers of food or feed. Do not put concentrate in food or drink containers. Do not dilute concentrate in food or drink containers. Store in a cool, dry place, out of direct sunlight.

END USER MUST READ AND OBSERVE ALL PRECAUTIONS ON PRODUCT LABEL.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

END USER MUST READ AND OBSERVE ALL PRECAUTIONS ON PRODUCT LABEL.

EYES: Do not get this material in your eyes. Eye contact can be avoided by wearing protective eyewear.

RESPIRATORY PROTECTION: Use this material only in well ventilated areas. Unless ventilation is adequate to keep airborne concentrations below recommended exposure standards, approved respiratory protection should be worn.

SKIN PROTECTION: Avoid contact with skin or clothing. Skin contact should be minimized by wearing protective clothing including gloves.

EXPLOSION LIMITS - See Section 2.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Granule

COLOR: Brown

odor: No data available

BULK DENSITY: 27.8 lb./cu. ft.

VAPOR PRESSURE: 7.0×10⁻⁶ Pa @ 25°C
toxazole).

PH: 6.43 @ 21°C (1% suspension)

CORROSION CHARACTERISTICS: No data available

SOLUBILITY: Dispersible in water
10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable at normal ambient temperatures.

INCOMPATIBILITY: None known

OXIDATION/REDUCTION PROPERTIES: Not reactive with water, monoammonium phosphate, zinc, and potassium permanganate.

EXPLODABILITY: Not expected to be explosive.

HAZARDOUS DECOMPOSITION PRODUCTS: No data available

11. TOXICOLOGICAL INFORMATION

ACUTE (Product Specific Information):

Eye Irritation: This product produced brief and/or minor eye irritation in the eyes of test animals. (Toxicity Category III)
Skin Irritation: This product produced brief and/or minor irritation in animals. (Toxicity Category IV)

Inhalation Toxicity: The 4-hour inhalation LD₅₀ in rats is >5000 mg/kg. (Toxicity Category IV)

Dermal Toxicity: The dermal LD₅₀ in rats is >5000 mg/kg. (Toxicity Category IV)

Skin Sensitization: This product was not a skin sensitizer in animals.

12. ECOLOGICAL INFORMATION

AQUATIC ORGANISM TOXICITY:

Life-cycle Daphnia magna MATC: 0.48 mg/l;
96-Hour LC₅₀ rainbow trout: 2.8 mg/l;
96-Hour LC₅₀ bluegill sunfish: 1.4 mg/l;
96-Hour LC₅₀ Japanese carp: 0.89 mg/l;
48-Hour EC₅₀ Daphnia magna: 7.1 mg/l;
Early life-stage rainbow trout MATC: 0.022 mg/l;
Life-cycle Daphnia magna MATC: 0.48 µg/l.
(MATC - Maximum Acceptable Toxic Concentration)

OTHER NON-TARGET ORGANISM TOXICITY:

Etoxazole Technical is practically nontoxic to adult worker honey bees. The 48-hour LD₅₀ values were: Oral LD₅₀ > 400 ppm; Contact LD₅₀ > 200 µg/bee.

13. DISPOSAL CONSIDERATIONS

END USERS MUST DISPOSE OF ANY UNUSED PRODUCT AS PER THE LABEL RECOMMENDATIONS.

DISPOSAL METHODS: Check government regulations and local authorities for approved disposal of this material. Dispose in accordance with applicable laws and regulations.

14. TRANSPORT INFORMATION

DOT (ground) SHIPPING NAME: Pesticide, Solid, Non-regulated
DOT TECHNICAL SHIPPING NAME: Etoxazole 72% granules
DOT REPORTABLE QUANTITY (RO): None
HAZARD CLASS: Not applicable
UN/NA NUMBER: Not applicable
REMARKS: None
EXEMPTION REQUIREMENT: None

15. REGULATORY INFORMATION

REGULATIONS UNDER IFRA: All pesticides are governed under IFRA (Federal Insecticide, Fungicide, and Rodenticide Act). Therefore, the regulations presented below are pertinent only when handled outside of the normal use and applications of pesticides. This includes waste streams resulting from manufacturing/formulation facilities, spills or misuse of products, and storage of large quantities of products containing hazardous or extremely hazardous substances.

OTHER U.S. FEDERAL REGULATIONS:

CWA Section 311: No data
SARA 313 Chemicals: None
CERCLA Reportable Quantity (RQ): None
SARA (311, 312): Immediate Health: Yes
Chronic Health: No
Fire: No
Sudden Pressure: No
Reactivity: No

STATE REGULATIONS: Each state may promulgate standards more stringent than the federal government. This section cannot encompass an inclusive list of all state regulations. Therefore, the user should consult state or local authorities. The state regulations reviewed include: California Proposition 65, Massachusetts Right to Know, Florida Substance List, Michigan Critical Materials List, New Jersey Right to Know, Pennsylvania Right to Know, Rhode Island Right to Know and the Minnesota Hazardous Substance list. For Washington State Right to Know, see Section 2 for Exposure Limit Information. For Louisiana Right to Know refer to SARA information listed under U.S. Regulations above.

California Proposition 65: Not listed

CANADIAN REGULATIONS:

WHMIS Hazard Class: Not determined

For information regarding potential adverse health effects from exposure to this product, refer to Sections 3 and 11.

16. OTHER INFORMATION

REASON FOR ISSUE: Change the Manufacturer’s address, input MSDS into the new system and update the Emergency Overview. Correct the product name.

MSDS NO.: 0096

REVISION NUMBER: 2

REVISION DATE: 10-10-03

SUPERcedes DATE: 8-25-00

THE INFORMATION IN THIS MSDS IS BASED ON DATA AVAILABLE TO US AS OF THE REVISION DATE GIVEN HEREIN, AND BELIEVED TO BE CORRECT. CONTACT VALENT USA CORPORATION TO CONFIRM IF YOU HAVE THE MOST CURRENT MSDS.

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Emergency Telephone: 1-800-892-0099

MSDS NO.: 0096

REVISION NUMBER: 2

REVISION DATE: 10-10-03

VID 12.16.03

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