

Safety Data Sheet

HEALTH EMERGENCY OR SPILL CALL: 1-925-249-9988

TRANSPORTATION EMERGENCY CALL: 1-800-424-9300 (CHEMTREC) OR 202-483-7616

1. IDENTIFICATION: CHEMICAL PRODUCT AND COMPANY

PRODUCT NAME: Stifle® WP Miticide

EPA REGISTRATION NUMBER: 89799-3

PRODUCT DESCRIPTION: Miticide

MANUFACTURER/DISTRIBUTOR

Raymat Crop Science, Inc.

440 Boulder Court, Suite 300

Pleasanton, CA 94566

PRODUCT INFORMATION

AGRICULTURAL PRODUCTS: (925)249-9988

Stifle® is a registered trademark of Raymat Materials Inc.

2. HAZARDS IDENTIFICATION

For EPA FIFRA-specific information see Section 15

Classification



WARNING

Very toxic to aquatic life with long lasting effects

Label elements

EMERGENCY OVERVIEW

Precautionary Statements - Prevention

Read product label prior to using this product. For specific handling instruction refer to Section 7, Handling and Storage

Precautionary Statements - Response

See Section 4, First Aid Measures

Precautionary Statements - Storage

For information on Storage and Handling see Section 7.

Precautionary Statements - Disposal

For further information on product and container disposal see Section 13.

Hazards not otherwise classified (HNOC)

Other Information

For information on Transportation requirements see Section 14.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Weight/ Percent
Etoazole	153233-91-1	70 - 75
Otherwise Classified	No CAS#	25-30

Other ingredients, which may be maintained as trade secrets, are any substances other than an active ingredient contained in this product. Some of these may be hazardous, but their identities are 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 **(925) 249-9988**.

4. FIRST AID MEASURES

EMERGENCY NUMBER (925) 249-9988

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

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. Call a poison control center or doctor for treatment advice.

INGESTION: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. DO NOT induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

INHALATION: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

NOTES TO PHYSICIAN: None

5. FIRE FIGHTING MEASURES

Flash point °F: Not applicable

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

FLAMMABLE LIMITS IN AIR (UFL, LFL): Not applicable

NFPA RATING: Health: 1 Flammability: 1 Reactivity: 0 Special: None

(Least-0, Slight-1, Moderate-2, High-3, Extreme-4). These values are obtained using professional judgement. Values were not available in the guidelines or published evaluations prepared by the National Fire Protection Association, NFPA.

FIRE FIGHTING EQUIPMENT: Firefighters should be equipped with self-contained positive pressure breathing apparatus and full bunker gear.

FIRE FIGHTING INSTRUCTIONS: Products of combustion from fires involving this material may be toxic. Avoid breathing smoke and mists. Avoid personnel and equipment contact with fallout and runoff. Minimize the amount of water used for firefighting. Do not enter any enclosed area without full protective equipment, including self-contained breathing equipment. Contain and isolate runoff and debris for proper disposal. Decontaminate personal protective equipment and firefighting equipment before reuse.

HAZARDOUS DECOMPOSITION 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.

6. ACCIDENTAL RELEASE MEASURES

EMERGENCY PHONE NUMBER: (925) 249-9988

OBSERVE PRECAUTIONS IN SECTION 8: PERSONAL PROTECTION

Stop the source of the spill if safe to do so. Contain the spill to prevent further contamination of the soil, surface water, or ground water. For additional spill response information refer to the North American Emergency Response Guidebook.

FOR SPILLS ON LAND:

Emergency Telephone: (925) 249-988

CONTAINMENT: Reduce airborne dust. Avoid runoff into storm sewers or other bodies of water.

CLEANUP: Clean up spill immediately. Vacuum or sweep up material and place in a chemical waste container.

Wash area with soap and water. Pick up wash liquid with additional absorbent and place in a chemical waste container.

UN/NA NUMBER: Not applicable

EMERGENCY RESPONSE GUIDEBOOK NO.: Not applicable

FOR SPILLS IN WATER:

CONTAINMENT: This material will disperse or dissolve in water. Stop the source of the release. Contain and isolate to prevent further release into soil, surface water and ground water.

CLEANUP: Clean up spill immediately. Absorb spill with inert material. Remove contaminated water for treatment or disposal.

7. HANDLING AND STORAGE

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

HANDLING: Avoid contact with eyes, skin or clothing. Users should wash hands thoroughly with soap and water before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside.

Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of the gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

STORAGE: Keep pesticide in original container only. Do not put concentrate into food or drink containers. Do not dilute concentrate in food or drink containers. Store in a cool, dry place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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

EYES & FACE: 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. If ventilation is not adequate to keep airborne concentrations below recommended exposure standards, approved respiratory protection should be worn.

SKIN & HAND PROTECTION: Avoid contact with skin or clothing. Applicator's and other handlers must wear: long-sleeved shirt and long pants, shoes and socks, and chemical-resistant gloves made out of barrier laminate, butyl rubber \geq 14 mils, nitrile rubber \geq 14 mils, neoprene rubber \geq 14 mils, natural rubber \geq 14 mils, polyethylene, polyvinyl chloride \geq 14 mils, or viton \geq 14 mils.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION (CONT.)

EXPOSURE LIMITS

Chemical Name	ACGIH Exposure Limits	OSHA Exposure Limits	Manufacturer's Exposure Limits
Etoazole	None	None	None
Others	Not known	Not known	Not known

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Solid
Appearance	Powder
Odor	No information available
Color	Gray
Odor threshold	No information available
pH	7.1 @ 22°C 1% solution
Melting point/freezing point	No information available
Explosive properties	No information available
Oxidizing properties	No information available
Density	No information available
Bulk density	23.3 lb/cubic foot

10. STABILITY AND REACTIVITY

Chemical stability

Stable under normal use and recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Extremes of temperature and direct sunlight.

Incompatible materials

Oxidizing agents.

Hazardous Decomposition Products

None known based on information supplied.

Hazardous Polymerization

Will not occur.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Oral Toxicity LD 50 (rats)	>5000 mg/kg	EPA Tox Category IV
Dermal Toxicity LD 50 (rabbits)	>5000 mg/kg	EPA Tox Category IV
Inhalation Toxicity LC 50 (rats)	>2.28 mg/L	EPA Tox Category IV
Eye Irritation (rabbits)	Brief and/or minor irritation	EPA Tox Category III
Skin Irritation (rabbits)	Brief and/or minor irritation	EPA Tox Category IV
Skin Sensitization (guinea pigs)	Non-sensitizer	EPA Tox Category N/A

CARCINOGEN CLASSIFICATION

Chemical Name	IARC	OSHA - Select Carcinogens	NTP Carcinogen List
Etoazole	Not listed	Not listed	Not listed
Others	Not Known	Not listed	Not known

11. TOXICOLOGICAL INFORMATION (CONT.)

TOXICITY OF ETOXAZOLE TECHNICAL

SUBCHRONIC: Compound-related effects observed in rodent studies, at high dietary dose levels of Etoxazole Technical, included increased liver weight, histological changes in the liver, and slight changes in hematology and blood biochemistry parameters. The NOELs in rats and mice were 100 and 400 ppm, respectively. In a 13-week feeding study in dogs with Etoxazole Technical, dose-related effects noted at the top two levels (10000 and 2000 ppm) included increased liver weights, decreased prostate weights, histological changes of the liver and prostate (acinar cell atrophy), and changes in blood biochemistry (high dose only). The NOEL for this study was 200 ppm. In a 28-day dermal toxicity study, no adverse effects were observed at doses of Etoxazole Technical up to 1000 mg/kg/day.

CHRONIC/CARCINOGENICITY: Two rat chronic/oncogenicity studies have been conducted with rats fed Etoxazole Technical in the diet. The first study, conducted at dose levels of 0, 4, 16 and 64 mg/kg/day, indicated liver toxicity and tumors of the testis and pancreas, but a MTD was not achieved. A second confirmatory study was conducted at dose levels of 0, 50, 5000 and 10000 ppm. The findings of the second study confirm that Etoxazole Technical is not carcinogenic. Two oncogenicity studies were also conducted in mice using dietary levels ranging from 15 to 4500 ppm. Again, Etoxazole Technical was found to be toxic to the liver at high doses, but not carcinogenic. In a one year study in dogs with Etoxazole Technical, an increase in absolute and relative liver weights was observed with corresponding histopathological changes in the liver at 1000 and 5000 ppm. The NOEL for this study was 200 ppm.

DEVELOPMENTAL TOXICITY: No developmental toxicity was observed in rats even at maternally toxic levels of Etoxazole Technical. Based on decreased food consumption at the 1000 mg/kg/day level, the maternal NOEL was 200 mg/kg/day and the developmental NOEL was 1000 mg/kg/day. In rabbits, Etoxazole Technical produced a slight increase in skeletal variations, but only at the maternally toxic level of 1000 mg/kg/day (based on decreased body weight gain, reduced food consumption and enlarged liver). The maternal and developmental NOELs were both 200 mg/kg/day.

REPRODUCTION: In a two-generation rat reproductive study with Etoxazole Technical, an increase in relative liver weight was observed in the F0 and F1 males in the 2000 ppm group. At the 2000 ppm level, the viability index on lactation day 4 was reduced in F1 pups. Body weights of this group were also reduced in F1 and F2 pups during the latter half of the lactation period. The NOEL for both adults and offspring was 400 ppm.

MUTAGENICITY: Etoxazole Technical was negative in the Microbial/Microsome Reverse Mutation Assay (Ames Test), in vivo mouse micronucleus assay, Unscheduled DNA Synthesis and the in vitro chromosome aberration test in Chinese hamster lung cells. A positive response was observed in the mammalian mutation assay using L5178Y mouse lymphoma cells.

For a summary of the potential for adverse health effects from exposure to this product, refer to Section 2. For information regarding regulations pertaining to this product, refer to Section 15.

12. ECOLOGICAL INFORMATION

AVIAN TOXICITY: Etoxazole Technical is considered to be practically nontoxic to birds based on results of test in the following species:

Oral LD 50 Mallard duck: greater than 2000 mg/kg
Dietary LC 50 Bobwhite quail: greater than 5200 ppm

No reproductive effects were observed in bobwhite quail exposed to 1000 ppm of Etoxazole Technical, the highest dose tested.

12. ECOLOGICAL INFORMATION (CONT.)

AQUATIC ORGANISM TOXICITY: Etoxazole Technical is moderately to highly toxic to fish and very highly toxic to aquatic invertebrates:

96-Hour LC 50 rainbow trout:	2.8 mg/L
96-Hour LC 50 bluegill sunfish:	1.4 mg/L
96-Hour LC 50 Japanese carp:	0.89 mg/L
48-Hour EC 50 Daphnia magna:	7.1 µg/L
Early life-stage rainbow trout MATC:	0.022 mg/L
Life-cycle Daphnia magna MATC:	0.48 µg/L

(MATC - Maximum Acceptable Toxicant Concentration)

OTHER NON-TARGET

ORGANISM TOXICITY: Etoxazole Technical is practically nontoxic to adult worker honey bees. The 48-hour LD 50 values were: Oral LD 50 > 200 µg/bee & Contact LD 50 > 200 µg/bee.

13. DISPOSAL CONSIDERATIONS

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

PRODUCT DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Open dumping is prohibited.

CONTAINER DISPOSAL: Non-refillable outer bag. Do not reuse or refill the outer bag. Completely empty bag into application equipment. Offer bag for recycling if available. If recycling is not available, then dispose of empty bag in a sanitary landfill or by incinerations, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

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

14. TRANSPORTATION INFORMATION

U.S. DOT (ground):

Containers ≤ 882 pounds (400 kg): Not regulated by U.S. DOT.

Containers > 882 pounds (400 kg):

SHIPPING NAME: UN3077, Environmentally Hazardous Substance, Solid, N.O.S.
(Etoxazole), 9, III

EMERGENCY RESPONSE GUIDEBOOK NO.: 171

MARINE POLLUTANT: Yes

ICAO/IATA (air):

UN 3077 Environmentally Hazardous Substance, Solid, N.O.S. (Etoxazole), 9, III, Marine Pollutant

REMARKS: Single or inner packaging less than 5 L (liquid) or 5 Kg net (solids) excepted from Dangerous Goods regulations -- see UN Special Provision 375. For U.S. shipping, Emergency Response Guidebook No. 171.

IMDG (vessel):

UN 3077, Environmentally hazardous substance, Solid, N.O.S. (Etoxazole), 9, III, Marine Pollutant

EMS NO.: F-A, S-F

15. REGULATORY INFORMATION

EPA-FIFRA LABEL INFORMATION THAT DIFFERS FROM OSHA-GHS REQUIREMENTS:

This material is a pesticide product registered by the EPA under FIFRA and is subject to certain labeling requirements under federal pesticide law. These requirements may differ from the classification criteria and hazard information required by OSHA GHS for safety data sheets, and for workplace labels of non-pesticide chemicals. The following is the hazard information as required on the FIFRA pesticide label:

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS & DOMESTIC ANIMALS

CAUTION – Causes moderate eye irritation. Avoid contact with eyes, skin and clothing.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to freshwater and marine/estuarine aquatic invertebrates, including oysters and shrimp. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not apply when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment washwaters or rinsate.

PHYSICAL OR CHEMICAL HAZARDS

Do not mix or allow contact with oxidizing agents. Hazardous chemical reaction may occur.

PESTICIDE REGULATIONS: All pesticides are governed under FIFRA (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.

U.S. FEDERAL REGULATIONS: Ingredients in this product are reviewed against an inclusive list of federal regulations. Therefore, the user should consult appropriate authorities. The federal regulations reviewed include: Clean Water Act, SARA, CERCLA, RCRA, DOT, TSCA and OSHA. If no components or information is listed in the space below this paragraph, then none of the regulations reviewed are applicable.

SARA (311, 312): Immediate, Delayed

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, California Directors List of Hazardous Substances, Massachusetts Right to Know, 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 8 for Exposure Limit information. For Louisiana Right to Know refer to SARA information listed under U.S. Regulations above. If no components or information is listed in the space below this paragraph, then none of the regulations reviewed are applicable.

Others

California Proposition 65 Status

This product does not contain any chemicals known to the state of California to cause cancer or reproductive harm.

CANADA

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

For information regarding potential adverse health effects from exposure to this product, refer to Sections 2 and 11.

16. OTHER INFORMATION

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-APPROVED PRODUCT LABELING (attached to and accompanying the product container). This SDS 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, 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.

SDS Version: 1.0

Effective Date: 10/24/2017