

MATERIAL SAFETY DATA SHEET



Emergency Phone: 800-992-5994
Dow AgroSciences LLC
Indianapolis, IN 46268

CONFIRM* 2F INSECTICIDE

Effective Date: 10/9/03
Product Code: 88808
MSDS: 007702

1. PRODUCT AND COMPANY IDENTIFICATION:

PRODUCT: Confirm* 2F Insecticide

COMPANY IDENTIFICATION:

Dow AgroSciences
9330 Zionsville Road
Indianapolis, IN 46268-1189

2. COMPOSITION/INFORMATION ON INGREDIENTS:

Tebufenozide:	CAS # 112410-23-8	22.5%
3,5-dimethylbenzoic acid		
1-(1,1-dimethylethyl)-2-(4-ethylbenzoyl)hydrazide		
Other Ingredients, Total, Including:		77.5%
Glycerine	CAS # 000056-81-5	

This document is prepared pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200). In addition, other substances not 'Hazardous' per this OSHA Standard may be listed. Where proprietary ingredient shows, the identity may be made available as provided in this standard.

3. HAZARDOUS IDENTIFICATIONS:

EMERGENCY OVERVIEW

Hazardous Chemical. Off-white liquid with a musty odor. May cause eye irritation. LD₅₀ for skin absorption is >5000 mg/kg. Oral LD₅₀ is >5000 mg/kg. Aerosol LC₅₀ is >2.7 mg/L for 4 hours.

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POTENTIAL HEALTH EFFECTS: This section includes possible adverse effects, which could occur if this material is not handled in the recommended manner.

EYE: May cause slight temporary eye irritation. Corneal injury is unlikely.

SKIN: Brief contact is essentially non-irritating to skin. Did not cause allergic skin reactions when tested in guinea pigs. Prolonged skin contact is unlikely to result in absorption of harmful amounts. The LD₅₀ for skin absorption in rats is >5000 mg/kg.

INGESTION: Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts. The oral LD₅₀ for rats is >5000 mg/kg.

INHALATION: No adverse effects are anticipated from single exposure to vapor. The aerosol LC₅₀ for rats is >2.7 mg/L for 4 hours.

SYSTEMIC (OTHER TARGET ORGAN) EFFECTS: For tebufenozide, in animals, effects have been reported on the following organs: blood, blood-forming organs (bone marrow & spleen), kidney, and liver. Excessive exposure may cause methemoglobinemia, thereby impairing the blood's ability to transport oxygen. For glycerine, in animals, effects have been reported on the following organs: gastrointestinal tract, kidney, and liver.

CANCER INFORMATION: Tebufenozide and glycerine did not cause cancer in laboratory animals.

TERATOLOGY (BIRTH DEFECTS): Tebufenozide and glycerine did not cause birth defects or any other fetal effects in laboratory animals.

REPRODUCTIVE EFFECTS: Tebufenozide, in animal studies, did not interfere with reproduction. For glycerine, reproductive effects seen in female animals are believed to be due to altered nutritional states resulting from extremely high doses of glycerine given in the diet. Similar effects have been seen in animals fed synthetic diets.

4. FIRST AID:

EYE: Flush eyes thoroughly with water for several minutes. Remove contact lenses after initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist.

SKIN: Wash skin with plenty of water.

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. Never give anything by mouth to an unconscious person.

INHALATION: Move person to fresh air; if effects occur, consult a physician.

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NOTE TO PHYSICIAN: Administer 100% oxygen to relieve headache and a general sense of weakness. Determine methemoglobin concentration of blood every 3 to 6 hours for first 24 hours. It should return to normal within 24 hours. The treatment of toxic methemoglobinemia may include the intravenous administration of methylene blue. If methemoglobin is >10-20% consider methylene blue 1-2 mg/kg body weight as 1% solution IV over 5 minutes followed by 15-30 cc flush (Price D, Methemoglobinemia, Goldfrank Toxicologic Emergencies, 5th ed., 1994). Also provide 100% oxygen. Methemoglobinemia may aggravate any preexisting condition sensitive to a decrease in available oxygen, such as chronic lung disease, coronary artery disease or anemias. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5. FIRE FIGHTING MEASURES:

FLASH POINT: Non-combustible
METHOD USED: Not available

FLAMMABLE LIMITS:

LFL: Not applicable
UFL: Not applicable

EXTINGUISHING MEDIA: Use the following extinguishing media when fighting fires involving this material: carbon dioxide, dry chemical, or water spray.

FIRE AND EXPLOSION HAZARDS: Pesticide particulates can become airborne. Dried product can burn.

FIRE-FIGHTING EQUIPMENT: Wear self-contained breathing apparatus (pressure-demand MSHA/NIOSH approved or equivalent) and full protective gear.

SPECIAL PROCEDURES: Remain upwind. Avoid breathing smoke. Use water spray to cool containers exposed to fire. Contain run-off.

6. ACCIDENTAL RELEASE MEASURES:

ACTION TO TAKE FOR SPILLS/LEAKS: Floor may be slippery; use care to avoid falling. Absorb small spills with a non-reactive material such as sand or dirt and place in a suitable container for disposal. Dike the area of large spills and call Dow AgroSciences at 800-992-5994 for clean up procedures. If exposed to the material during cleanup, remove all contaminated clothing promptly. Wash all exposed skin areas with soap and water immediately after exposure. Do not take clothing home to be laundered.

7. HANDLING AND STORAGE:

HANDLING: Do not get product in eyes or on clothing. Avoid breathing vapors or spray mist. Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. For handling relative to end-use of this product, read the product label for further information concerning the use of personal protective equipment (PPE) under the Worker Protection Standard of 1993.

STORAGE: Do not store this material near food, feed or drinking water. Keep container tightly closed when not in use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION:

These precautions are suggested for conditions where the potential for exposure exists. Emergency conditions may require additional precautions.

EXPOSURE GUIDELINES:

Glycerine: ACGIH TLV is 10 mg/M³. OSHA PEL is 15 mg/M³ total, 5 mg/M³ respirable.
Tebufenozide: Dow AgroSciences Industrial Hygiene Guide is 1.3 mg/M³, TWA.

ENGINEERING CONTROLS: Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines.

RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS:

EYE/FACE PROTECTION: Use safety glasses.

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SKIN PROTECTION: Use gloves chemically resistant to this material when prolonged or frequently repeated contact could occur.

RESPIRATORY PROTECTION: Atmospheric levels should be maintained below the exposure guidelines. When respiratory protection is required for certain operations, use a NIOSH approved air-purifying respirator.

APPLICATORS AND ALL OTHER HANDLERS: Refer to the product label for personal protective clothing and equipment.

9. PHYSICAL AND CHEMICAL PROPERTIES:

COLOR: Off-white
APPEARANCE: Liquid
ODOR: Musty
pH: 6 to 7.5
VISCOSITY: 300 to 600 CPS
SPECIFIC GRAVITY (WATER = 1): 1.05 @ 77°F (25°C)
VAPOR DENSITY (AIR = 1): <1 Water
VAPOR PRESSURE: 17 mmHg @ 68°F (20°C) Water
BOILING POINT: 212°F (100°C) Water
SOLUBILITY IN WATER: Dispersible
PERCENT VOLATILITY: 72 to 75%
EVAPORATION RATE (Bac = 1): <1 Water

10. STABILITY AND REACTIVITY:

STABILITY: Stable under normal storage conditions.

INCOMPATIBILITY: Avoid contact with strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition may yield the following: isobutylene

HAZARDOUS POLYMERIZATION: Not known to occur.

11. TOXICOLOGICAL INFORMATION:

MUTAGENICITY: For tebufenozide, in-vitro and animal genetic toxicity studies were negative. For glycerine, in-vitro genetic toxicity studies were negative.

12. ECOLOGICAL INFORMATION:

ENVIRONMENTAL FATE:

ECOTOXICOLOGY:

Based on information for tebufenozide:
Oyster shell (*Crassostrea virginica*), Deposition EC₅₀ is 0.64 mg/L
Earthworm, 14 Day LC₅₀ is >1000 mg/kg
Honeybee, LD₅₀ is >234 µg/bee
Mallard duck, LC₅₀ is >5000 ppm
Bobwhite quail, LC₅₀ is >5000 ppm
Bobwhite quail, LD₅₀ is >2150 mg/kg
Daphnia magna, 48 hour EC₅₀ is 3.8 mg/L
Rainbow trout (*Salmo gairdneri*), 96 hour LC₅₀ is 5.7 mg/L
Bluegill sunfish (*Lepomis macrochirus*), 96 hour LC₅₀ is 3.0 mg/L

13. DISPOSAL CONSIDERATIONS:

DISPOSAL: Do not contaminate water, food or feed by storage or disposal. Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal law. If wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA regional office for guidance.

14. TRANSPORT INFORMATION:

U.S. DEPARTMENT OF TRANSPORTATION (DOT) INFORMATION:

This material is not regulated for transportation.

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15. REGULATORY INFORMATION:

NOTICE: The information herein is presented in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with federal, state or provincial, and local laws. The following specific information is made for the purpose of complying with numerous federal, state or provincial, and local laws and regulations.

U.S. REGULATIONS

SARA 313 INFORMATION: To the best of our knowledge, this product contains no chemical subject to SARA Title III Section 313 supplier notification requirements.

SARA HAZARD CATEGORY: This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

An immediate health hazard
A delayed health hazard

TOXIC SUBSTANCES CONTROL ACT (TSCA): All ingredients are on the TSCA inventory or are not required to be listed on the TSCA inventory.

STATE RIGHT-TO-KNOW: The following product components are cited on certain state lists as mentioned. Non-listed components may be shown in the composition section of the MSDS.

CHEMICAL NAME	CAS NUMBER	LIST
Glycerine	000056-81-5	PA1

PA1=Pennsylvania Hazardous Substance (present at greater than or equal to 1.0%).

OSHA HAZARD COMMUNICATION STANDARD: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) RATINGS:

Health	1
Flammability	0
Reactivity	0

COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT (CERCLA, or SUPERFUND): To the best of our knowledge, this product contains no chemical subject to reporting under CERCLA.

16. OTHER INFORMATION:

MSDS STATUS: Revised to DAS Format
Reference: DR-0385-7123
Replaces MSDS Dated: 6/1/01
Document Code: D03-809-002
Replaces Document Code: D03-809-001

The Information Herein Is Given In Good Faith, But No Warranty, Express or Implied, Is Made. Consult Dow AgroSciences for Further Information.