



MATERIAL SAFETY DATA SHEET

Product: **MONCUT[®] 50-W FUNGICIDE**

Formulator: Gowan Company
P.O. Box 5569
Yuma, Arizona 85366-5569
(520) 783-8844

Emergency Phone: (520) 783-3803

For 24-Hour Emergency Assistance (Spill, Leak, Fire, or Exposure), Call CHEMTREC[®]:

Inside the U.S.: (800) 424-9300
Outside the U.S.: (703) 527-3887
(800) 225-5635 ext. 283

For *MEDICAL* Emergency:

1. CHEMICAL IDENTIFICATION

Product: **MONCUT 50-W**
EPA Signal Word: Caution
Active Ingredient: Flutolanil (50%)
Chemical Name: N-{3-(1-methylethoxy)phenyl}-2-(trifluoromethyl) benzamide (active ingredient)
Chemical Class: Fungicide
EPA Registration No.: 71711-3-10163
CAS No.: 66332-96-5

2. COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT NAME	OSHA – PEL	ACGIH – TLV	OTHER	NTP/IARC/OSHA CARCINOGEN
Flutolanil (50%)	Not established	Not established	Not available	No
Kaolin	Not established	2 mg/m ³ (respirable dust)	Not available	No
Amorphous silica (hydrated)	6 mg/m ³	6mg/m ³	Not available	No

3. HAZARDS IDENTIFICATION

Physical Properties

Appearance: Light tan powder
Odor: No distinct odor

Symptoms of Overexposure

Excessive dust inhalation may irritate the respiratory tract. No other specific health effects are known.

Medical Conditions Likely to be Aggravated by Exposure

Excessive dust inhalation may aggravate pre-existing conditions of the upper respiratory system.

Relevant Routes of Exposure

May be harmful if dust is inhalation or comes in contact with skin. Avoid contact with eyes, skin, or clothing.

Target Organs

Flutolanil (50%): Results from 90-day animal studies suggest no target organ effects under the conditions of normal handling and use.

Hazardous Decomposition Products

Gives off toxic oxides of carbon and nitrogen when burned.

Unusual Fire, Explosion, and Reactivity Hazards

The product powder can be combustible; dispersion of fine dust in the air can form an explosive mixture. Will burn to give off toxic oxides of carbon and nitrogen.

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.

Eye Contact: Flush eyes with plenty of water. Call a physician if irritation persists.

Skin Contact: Wash with plenty of soap and water. Call a physician if irritation persists.

Note to Physician

Supportive care is recommended. Treatment based on judgement of the physician.

!! IN ALL CASES OF SUSPECTED POISONING, GET MEDICAL ATTENTION IMMEDIATELY !!

For emergency **MEDICAL** response and hazard communication **ONLY**, call:

Hazard Information Services at (800) 228-5635 ext. 283.

5. FIRE FIGHTING MEASURES

Flashpoint (test method): Not applicable

Flammable Limits (% in air): Not applicable

Autoignition Temperature: Not available

Flammability: Not flammable

Appropriate Extinguishing Media

Use water, foam, carbon dioxide, or dry powder.

Fire Fighting Guidance

Wear positive pressure self-contained breathing apparatus. Spray containers with water to keep cool.

Unusual Fire and Explosion Hazards

The product powder can be combustible; dispersion of fine dust in the air can form an explosive mixture. Will burn to give off toxic oxides of carbon and nitrogen.

6. ACCIDENTAL RELEASE MEASURES

In Case of Spills or Leaks

Sweep up carefully while avoiding the formation of a dust cloud. Place in suitable container and seal for disposal. Area can be washed with water to remove last traces of material, but keep out of watercourses or sewers. Inform authorities immediately if contamination occurs. Use proper protective equipment to minimize exposure (see Section 8). Take all necessary action to prevent and to remedy the adverse effect of the spill. Ensure the disposal is in compliance with Federal requirements and State or local regulations.

7. HANDLING AND STORAGE

Precautions in Storing

This product causes moderate eye irritation and is harmful if absorbed through the skin. Avoid contact with skin, eyes, or clothing. Avoid breathing dusts.

User Safety Recommendations

Do not eat, drink, smoke, or chew gum or tobacco while handling this product and until hands and face are thoroughly washed with soap and water. Do not use the toilet before thoroughly washing hands. If this product penetrated through your clothing or personal protective equipment, stop handling this product immediately, remove clothing and equipment, wash your body thoroughly, and put on clean clothing and equipment before resuming the handling activity. After handling this product, remove personal protective equipment immediately. Wash the outside of gloves before taking them off. Shower or wash thoroughly and change into clean clothing as soon as possible. Discard clothing and personal protective equipment that cannot be reused, including clothing and other absorbent materials that have been drenched or thoroughly contaminated with this product's concentrate. Otherwise, wash clothing and personal protective equipment (including both the inside and outside of gloves) before each day of reuse according to manufacturer's directions or, if no such directions, in detergent and hot water. Keep and wash them separately from other laundry. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency in your State responsible for pesticide regulation.

7. HANDLING AND STORAGE (Continued)

Storage Precautions

Store in the original container and keep closed. Store in a cool dry place. Do not store near or contaminate food or feed products.

Work/Hygienic Practices

When the product is handled or used in a manufacturing or packaging facility, proper dust exhaustion is required to minimize the potential for dust explosion. However, such electrostatic/dust hazard potential is not applicable to the finished end-use product when it is fully enclosed in a water-soluble bag.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls

Control airborne concentrations below the exposure guidelines (see Section 2 for OSHA/ACGIH exposure limits). Use with adequate ventilation. Local exhaust ventilation may be necessary, especially when used in a confined area.

For Manufacturing and Packaging Employees

Eye/Face

Protection: Safety glasses; chemical workers goggles.

Skin Protection: PVC protective gloves recommended.

Respiratory

Protection: Ensure good ventilation. If not adequate, use a suitable dust mask or a dust respirator.

Other/General

Protection: None specific; good general practice consistent with pesticide handling.

User Safety

Recommendations: Users should wash hands 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.

Note to Applicators and Handlers of Agricultural Products

For agricultural products which are within the scope of the EPA Worker Protection Standards (WPS) (40 CFR Part 170), all users must refer to the statement below or the Product Label for WPS-specified Personal Protective Equipment (PPE), Restricted Entry Interval (REI), and other Precautionary Statements.

Personal Protective Equipment for Applicators and Handlers

Long sleeved shirts, long pants, waterproof gloves and shoes plus socks must be worn.

Personal Protective Equipment Required for Early Entry Into Treated Areas

For entry into treated area during the restricted entry interval (REI) of 12 hours that involves contact with anything that has been treated such as plants, soil, or water, the PPE required is: coveralls, waterproof gloves, and shoes plus socks

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Light tan free-flowing powder

Odor: Strong mercaptan odor

Melting Point: 219-221°F, 104-105 °C

Boiling Point: Not applicable

Specific Gravity/

Density: 0.18 g/ml

Solubility in H₂O

Flutolanil 9.6 mg/L (9.6 ppm) @ 68°F or 20°C

Vapor Pressure

Flutolanil 1.33 X 10⁵ mm Hg @ 68°F or 20°C

10. STABILITY AND REACTIVITY

Stability:	Stable at ambient conditions.
Hazardous Polymerization:	None
Decomposition Products:	Will burn to give off toxic oxides of carbon and nitrogen.
Conditions to Avoid:	Extreme heat or moisture

11. TOXICOLOGICAL INFORMATION

Acute Toxicity/Irritation Studies

Ingestion:	Low toxicity Oral LD ₅₀ (rat): >5,000 mg/kg body weight
Dermal:	Low toxicity Dermal LD ₅₀ (rabbit): >2,000 mg/kg body weight
Inhalation:	Low toxicity Inhalation LC ₅₀ (rat): >6.72 mg/L – 4 hours Greater than 6.72 mg/L, the highest attainable dust concentration in air, no mortality or toxicity was observed in 15 days when rats were exposed to this maximum dose.
Eye Contact:	Causes moderate eye irritation, especially under conditions of prolonged eye contact.
Skin Contact:	Harmful if absorbed through skin.

Mutagenic Potential

Flutolanil (50%):	Flutolanil Technical was not mutagenic or genotoxic when tested in the Ames gene mutation assay, the mouse micronucleus test, or the chromosomal aberration assay.
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Reproductive Hazard Potential

Flutolanil (50%):	Reproductive: Flutolanil Technical showed no adverse effects on reproduction in a three-generation rat reproduction study at dietary doses up to 10,000 ppm. Teratogenicity: Flutolanil Technical demonstrated no teratogenic effects in rabbits or rats at oral dose levels up to 1,000 mg/kg/day, the highest dose tested in each species.
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Chronic Toxicity Studies and Carcinogenic Information

In two-year feeding studies with Flutolanil in rats, no organotoxic effects were observed at dose levels up to 200 ppm. At very high experimental dose levels (2,000-10,000 ppm), slight anemia, minor liver damage, and some nephrosis were observed. However, Flutolanil had no significant effect on mortality and was not carcinogenic at any of the doses tested. Similar results were observed in mice administered up to 30,000 ppm for 18 months and in dogs administered up to 1250 mg/kg/day for two years. EPA Peer Review Committee (1994) classed Flutolanil technical into Group E (noncarcinogenic).

Other Toxicity Information

Neurotoxicity:	No chemical neurotoxic signs or other types of neurotoxicity were observed in any toxicology studies.
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12. ECOLOGICAL INFORMATION

Summary of Effects

Flutolanil (50%):	This product is toxic to shrimp. For terrestrial uses, do not apply directly to water, areas where surface water is present, or to intertidal area below the mean high water mark. Do not contaminate water when disposing of equipment wash waters. This chemical demonstrates the properties and characteristics associated with chemicals detected in ground water. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.
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13. DISPOSAL CONSIDERATION

Pesticide Disposal

Handling and disposal of pesticide wastes, including spills or rinsates, must be in accordance with Federal requirements under the Resource Conservation and Recovery Act (RCRA). Also must ensure that the waste disposal is in compliance with State and local regulations, which may be more restrictive or otherwise different from the RCRA requirements. Do not contaminate water, food, or feed by storage or disposal. Wastes resulting from the use of this product may be disposed of on site or at approved disposal facilities.

Container Disposal

See product label (e.g., Container Disposal).

14. TRANSPORT INFORMATION

DOT Classification

Not regulated

International Maritime Organization

None

International Civil Aviation Organization

None

15. REGULATORY INFORMATION

SARA Title III Classification

Section 302/304:	Not applicable
Section 311/312:	Acute health hazard
Section 313 chemical(s):	Not applicable

Proposition 65

Not applicable

CERCLA Reportable Quantity (RQ)

Not applicable

RCRA Classification

If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.

TSCA Status

Exempt from TSCA

16. OTHER INFORMATION

NFPA Hazard Ratings

Health:	1	0	Least
Flammability:	1	1	Slight
Reactivity:	0	2	Moderate
		3	High
		4	Severe

Notice: The information and recommendations contained herein are provided in good faith and 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 herein.

Prepared By:

Gowan Company
(520) 783-8844

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