



MATERIAL SAFETY DATA SHEET

BOTRAN[®] 5F

Product:

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: BOTRAN 5F
EPA Signal Word: Caution
Active Ingredient: Dicloran (46.7%)
Chemical Name: 2,6-dichloro-4-nitroaniline
Chemical Class: Fungicide

EPA Registration No.: 10163-226
CAS No.: 99-30-9

2. COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT NAME	OSHA – PEL	ACGIH – TLV	OTHER	NTP/IARC/OSHA CARCINOGEN
Dicloran (46.7%)	None	None	Not established	No

3. HAZARDS IDENTIFICATION

Physical Properties

Appearance: Yellow liquid
Odor: Slight aniline smell

Symptoms of Acute Exposure

No systemic reaction has been noted in humans.

Medical Conditions Likely to be Aggravated by Exposure

None known

Primary Routes of Exposure

Harmful if it comes in contact with skin or if it's swallowed and inhaled.

Hazardous Decomposition Products

None known up to 100°C

Unusual Fire, Explosion, and Reactivity Hazards

Toxic fumes such as hydrogen chloride (HCl) and oxides of nitrogen (NO_x) may develop if product is burned.

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.

Ingestion: Drink warm water and induce vomiting by touching back of the throat with finger and/or by administering syrup of ipecac. Follow with milk and a mild cathartic (Milk of Magnesia). Call a physician or Poison Control Center immediately. Never give fluids or induce vomiting if patient is unconscious or having convulsions.

Inhalation: Move victim from contaminated area to fresh air. Apply respiration if necessary. Seek medical advice.

Eye Contact: Immediately flush eyes with plenty of water. Get medical attention if irritation persists.

Skin Contact: Wash with soap and water. Get medical attention.

!! 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): > 200°F

Flammable Limits (% in air): Not applicable

Autoignition Temperature: Not available

Appropriate Extinguishing Media

Use water spray, Class A, B or C extinguisher.

Fire Fighting Guidance

Wear self-contained breathing apparatus (SCBA).

Unusual Fire, Explosion, and Reactivity Hazards

Toxic fumes such as hydrogen chloride (HCl) and oxides of nitrogen (NO_x) may develop if product is burned. Dispersion of fine dust in air may form explosive mixture.

6. ACCIDENTAL RELEASE MEASURES

In Case of Spills or Leaks

Keep unnecessary people away and isolate hazard area. Spread absorbent material over spill and sweep up. **SWEEP UP SPILL CAREFULLY.** Place material into a clean, dry container and cover for disposal. Wash contaminated areas with water and detergent. Inform authorities if material enters sewer or watercourse. Do not contaminate water, food or animal feed through inappropriate disposal.

7. HANDLING AND STORAGE

CAUTION: May be harmful if swallowed, inhaled or absorbed through the skin. Avoid breathing spray mist. Avoid contact with skin, eyes, or clothing. Do not contaminate water, food or feed by storage or disposal.

Precautions in Storing

Store in original container in a cool dry place and keep container closed. Do not reuse container. **DO NOT** contaminate water, food or animal feed through inappropriate storage.

Storing

Store in the original container and keep closed. Store containers in a cool, dry place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls

Use in well-ventilated areas.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Personal Protection

Eye/Face	Not required; use normal safety precautions.
Skin Protection	Wear a long sleeved shirt and long pants, shoes plus socks, and waterproof gloves.
Respiratory Protection	Not required; use normal safety precautions.
Additional Protection Information	Harmful if swallowed. Avoid contact with eyes and skin. Avoid inhalation of dust or spray mist.
User Safety Recommendations	Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing if pesticide gets inside. Then wash thoroughly and put on clean clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Yellowish liquid
Odor:	Slight aniline smell
Melting Point:	192-194°C
Boiling Point:	Not available
Specific Gravity/ Density:	1.286 @ 20°C
Solubility in H₂O Dicloran	Miscible
Vapor Pressure Dicloran	2 x 10 ⁻⁶ at 25°C (technical)

10. STABILITY AND REACTIVITY

Stability:	Stable under normal storage conditions for at least 36 months.
Hazardous Polymerization:	Will not occur
Decomposition Products:	None known for up to 100° C
Hazardous Mixtures:	None known
Conditions To Avoid:	None known

11. TOXICOLOGICAL INFORMATION

Acute Toxicity/Irritation Studies

Laboratory testing has shown Dicloran to have no chronic effects.

Ingestion:	Acute Oral LD ₅₀ (rat):	>5,000 mg/kg body weight
Dermal:	Acute Dermal LD ₅₀ (rabbit):	>2,000 mg/kg body weight
Inhalation:	Acute Inhalation LC ₅₀ (rat-male):	>2.13 mg/L air – 4 hour
	Acute Inhalation LC ₅₀ (rat-female):	>3.24 mg/L air – 4 hour
Eye Contact:	Slightly irritating	
Skin Contact:	Slightly irritating	
Skin Sensitizer:	Mild sensitizer (Guinea pig)	

Mutagenic Potential

Not available

Reproductive Hazard Potential

Not available

11. TOXICOLOGICAL INFORMATION (continued)

Chronic/Subchronic Toxicity Studies

Not available

Carcinogenic Potential

None

Other Toxicity Information

Not available

12. ECOLOGICAL INFORMATION

Summary of Effects

Dicloran

Toxic to fish. For terrestrial uses, 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 where runoff is likely to occur. Do not apply when weather conditions favor drift from areas treated. Do not contaminate water when disposing of equipment wash waters.

Other Environmental Information Use Precautions

Not available

13. DISPOSAL CONSIDERATION

Pesticide Disposal

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal

Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

Hazardous Information

None

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:	Immediate (acute) health hazard
Section 313 chemical(s):	Dicloran

Proposition 65

Not applicable

CERCLA Reportable Quantity (RQ)

None

RCRA Classification

Not applicable

15. REGULATORY INFORMATION (continued)

TSCA Status

Exempt from TSCA

16. OTHER INFORMATION

NFPA Hazard Ratings

Health: 1
Flammability: 0
Reactivity: 0

0	Least
1	Slight
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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