

## 1 Identification

· **Product identifier**

· **Trade name: Botran® 5F Fungicide**

**EPA Registration No.: 10163-226**

· **CAS Number: Active Ingredient: Dicloran (46.7%), CAS:99-30-9**

· **Application of the substance / the mixture** Agricultural Fungicide

· **Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**

Gowan Company

P.O. Box 5569

Yuma, Arizona 85366-5569

(928) 783-8844

· **Information department:** sds@gowanco.com

· **Emergency telephone number:**

Chemtrec® Emergency Telephone 24 - Hours: (Spills, leak or fire) Inside U.S. & Canada: (800) 424-9300  
Outside the U.S. & Canada: +011 (703) 527-3887

For medical emergency (Prosar® ): (888) 478-0798

## 2 Hazard(s) identification

· **Classification of the substance or mixture**



GHS09 Environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



GHS07

Acute Tox. 4 H332 Harmful if inhaled.

· **Label elements**

· **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS07 GHS09

· **Signal word** Warning

· **Hazard statements**

H332 Harmful if inhaled.

H411 Toxic to aquatic life with long lasting effects.

· **Precautionary statements**

P261 Avoid breathing dust/fume/gas/mist/vapors/spray

P271 Use only outdoors or in a well-ventilated area.

P273 Avoid release to the environment.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312 Call a poison center/doctor if you feel unwell.

P391 Collect spillage.

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Reviewed on 02/25/2019

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P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Hazard description:**

Harmful if absorbed through skin. Harmful if inhaled. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing. Avoid breathing spray mist of vapor. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 1  
 Fire = 0  
 Reactivity = 0

**HAZARD INDEX:**

4 Severe Hazard  
 3 Serious Hazard  
 2 Moderate Hazard  
 1 Slight Hazard  
 0 Minimal Hazard

· **Other hazards**

· **Results of PBT and vPvB assessment**

- **PBT:** Not applicable in US.
- **vPvB:** Not applicable in US.

### 3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

CAS: 99-30-9	Dicloran (2,6-dichloro-4-nitroaniline)	46.7%
	⚠ Aquatic Chronic 2, H411; ⚠ Acute Tox. 4, H302	

### 4 First-aid measures

· **Description of first aid measures**

· **General information:**

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

You may also contact 1-888-478-0798 for emergency medical treatment information.

· **After inhalation:**

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

· **After 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.

· **After eye contact:**

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

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- **After swallowing:**
  - 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 a poison control center or doctor.
  - Do not give anything by mouth to an unconscious person.
- **Information for doctor:**
  - **Most important symptoms and effects, both acute and delayed** Unknown
  - **Indication of any immediate medical attention and special treatment needed** None

### 5 Fire-fighting measures

- **Extinguishing media**
  - **Suitable extinguishing agents:**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture**  
Formation of toxic gases is possible during heating or in case of fire.  
Hydrogen chloride (HCl)  
Nitrogen oxides (NO<sub>x</sub>)
- **Advice for firefighters**
  - **Protective equipment:** Wear self-contained respiratory protective device.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### 7 Handling and storage

- **Handling:**
    - **Precautions for safe handling**  
Keep receptacle tightly sealed.  
Harmful if absorbed through skin. Harmful if inhaled. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing. Avoid breathing spray mist of vapor. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.
- Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.
- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
  - Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
  - Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash

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- **Information about protection against explosions and fires:** Keep ignition sources away - Do not smoke.
- **Conditions for safe storage, including any incompatibilities**
  - **Storage:**
    - **Requirements to be met by storerooms and receptacles:** Store in a cool, dry place.
    - **Information about storage in one common storage facility:** Store away from foodstuffs.
    - **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** Not applicable; see item 7 Handling and storage.
- **Control parameters**
  - **Components with limit values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
  - **Additional information:**  
Harmful if absorbed through skin. Harmful if inhaled. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing. Avoid breathing spray mist of vapor. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.
- **Exposure controls**
  - **Personal protective equipment:**
    - **General protective and hygienic measures:**  
The usual precautionary measures for handling chemicals should be followed.  
Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.
      - Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
      - Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
      - Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash
  - **Breathing equipment:** Not required.
  - **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

- **Eye protection:** Goggles recommended during refilling.
- **Body protection:**  
All mixers, loaders, applicators and other handlers must wear:
  - Long-sleeved shirt and long pants
  - Shoes plus socks
  - Chemical-resistant gloves (except for pilots)

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## 9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

- **Form:** Liquid
- **Color:** Yellowish
- **Odor:** Slight aniline
- **Odor threshold:** Not determined.

· **pH-value:** Not determined.

· **Change in condition**

- **Melting point/Melting range:** Undetermined.
- **Boiling point/Boiling range:** 192-194 °C (377.6-381.2 °F)

· **Flash point:** Not applicable.

· **Flammability (solid, gaseous):** Not applicable.

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not self-igniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits:**

- **Lower:** Not determined.
- **Upper:** Not determined.

· **Vapor pressure:** Not determined.

· **Density at 20 °C (68 °F):** 1.286 g/cm<sup>3</sup> (10.73167 lbs/gal)

- **Relative density:** Not determined.
- **Vapor density:** Not determined.
- **Evaporation rate:** Not determined.

· **Solubility in / Miscibility with**

· **Water:** Fully miscible.

· **Partition coefficient (n-octanol/water):** Not determined.

· **Viscosity:**

- **Dynamic:** Not determined.
- **Kinematic:** Not determined.

· **Other information:** No further relevant information available.

## 10 Stability and reactivity

· **Reactivity:** No further relevant information available.

· **Chemical stability:** Stable under normal conditions

· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

· **Possibility of hazardous reactions:** No dangerous reactions known.

· **Conditions to avoid:** No further relevant information available.

· **Incompatible materials:** potassium permanganate

· **Hazardous decomposition products:** No dangerous decomposition products known.

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## 11 Toxicological information

· **Information on toxicological effects**

· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

Oral	LD50	>5000 mg/kg (rat)
Dermal	LD50	>2000 mg/kg (rabbit)
Inhalative	LC50/4 h	>2.13 mg/l (rat) (male)

· **Primary irritant effect:**

· **on the skin:** Slightly irritating

· **on the eye:** Slight irritation

· **Sensitization:** Mild sensitizer (Guinea pig)

· **Additional toxicological information:**

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

None of the ingredients are listed.

· **NTP (National Toxicology Program)**

None of the ingredients are listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients are listed.

## 12 Ecological information

· **Toxicity**

This product is toxic to fish.

This product may contaminate water through runoff. This product has a high potential for runoff for several months or more after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product.

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment, washwaters or rinsate.

This chemical can contaminate surface water through spray or dust applications. Under some conditions, it may also have a potential for runoff into surface water after application.

· **Aquatic toxicity:** No further relevant information available.

· **Persistence and degradability** No further relevant information available.

· **Behavior in environmental systems:**

· **Bioaccumulative potential** No further relevant information available.

· **Mobility in soil** No further relevant information available.

· **Additional ecological information:**

· **General notes:**

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

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· **Other adverse effects** No further relevant information available.

## 13 Disposal considerations

· **Waste treatment methods**

· **Recommendation:**

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

· **Uncleaned packagings:**

· **Recommendation:**

Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. After cleaning, if recycling is not available, puncture and dispose of in a sanitary landfill or by incineration or if allowed by State and local authorities by burning. If burned stay out of smoke.

## 14 Transport information

· **UN-Number**

· DOT, ADR, ADN, IMDG, IATA Not regulated

· **UN proper shipping name**

· ADR, ADN, IMDG, IATA Not regulated

· **Transport hazard class(es)**

· ADR, ADN, IMDG, IATA  
 · Class Void

· **Packing group**

· ADR, IMDG, IATA Void

· **Environmental hazards:**

· **Marine pollutant:** No

· **Special precautions for user**

Not applicable

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not applicable

· **UN "Model Regulation":**

Not regulated

## 15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

EPA /FIFRA Information:

This chemical is a pesticide product registered by the Environmental Protection Agency (EPA) and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals.

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· **SARA Title III**

· **Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

· **Section 313 (Specific toxic chemical listings):**

All ingredients are listed.

· **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients are listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

· **Carcinogenicity categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients are listed.

· **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients are listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients are listed.

· **GHS label elements**

Not applicable

The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**

Not applicable

· **Signal word**

(US EPA) CAUTION

· **Hazard statements**

Harmful if absorbed through skin.

Harmful if inhaled

Causes moderate eye irritation.

Avoid contact with skin, eyes, or clothing.

Avoid breathing spray mist or vapor.

Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

H332 Harmful if inhaled.

H411 Toxic to aquatic life with long lasting effects.

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· **Precautionary statements**

- P261 Avoid breathing dust/fume/gas/mist/vapors/spray  
 P271 Use only outdoors or in a well-ventilated area.  
 P273 Avoid release to the environment.  
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 P312 Call a poison center/doctor if you feel unwell.  
 P391 Collect spillage.  
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 16 Other information

*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.*

· **Department issuing SDS:** Supply Chain

· **Contact:** sds@gowanco.com

· **Date of preparation / last revision** 02/25/2019 / 3

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Acute Tox. 4: Acute toxicity – Category 4

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

· **Sources** Botran® 5F is a registered trademark of Gowan Company, LLC.