

Safety Data Sheet
according to PMRA

Printing date 11/14/2023

Reviewed on 11/14/2023

1 Identification

· **Product identifier**

· **Trade name:** Gavel® DF Fungicide

· **Article number:** Canada_Eng9

· **CAS Number:**

Mancozeb (66.7%): 8018-01-7

Zoxamide (8.3%): 156052-68-5

Registration number PCP Registration No.: 26842

Group M3 22 Fungicides

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

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

· **Manufacturer/Supplier:**

Gowan Company, L.L.C.

P.O. Box 5569

Yuma, Arizona 85366-5569

Gowan Canada 1-800-960-4318

· **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 (ProPharma Group®): (888) 478-0798

2 Hazard identification

· **Classification of the substance or mixture**



GHS07

Acute Toxicity (Inhalation) - Category 4 H332 Harmful if inhaled.

Skin Sensitizer - Category 1

H317 May cause an allergic skin reaction.

· **Label elements**

· **GHS label elements**

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

· **Hazard pictograms**



GHS07

· **Signal word** Warning

· **Hazard-determining components of labeling:**

Mancozeb

zoxamide (ISO)

· **Hazard statements**

H332 Harmful if inhaled.

H317 May cause an allergic skin reaction.

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Precautionary statements

- P101 *If medical advice is needed, have product container or label at hand.*
- P102 *Keep out of reach of children.*
- P103 *Read label before use.*
- P261 *Avoid breathing dust/fume/gas/mist/vapours/spray.*
- P271 *Use only outdoors or in a well-ventilated area.*
- P272 *Contaminated work clothing should not be allowed out of the workplace.*
- P280 *Wear protective gloves.*
- P302+P352 *If on skin: Wash with plenty of water.*
- P304+P340 *IF INHALED: Remove person to fresh air and keep comfortable for breathing.*
- P312 *Call a poison center/doctor if you feel unwell.*
- P321 *Specific treatment (see on this label).*
- P362+P364 *Take off contaminated clothing and wash it before reuse.*
- P333+P313 *If skin irritation or rash occurs: Get medical advice/attention.*
- P501 *Dispose of contents/container in accordance with local/regional/national/international regulations.*

Hazard description:

Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, after handling, wash thoroughly with soap and water and change into clean clothing. Wash hands with soap and water before eating, drinking, chewing gum, using tobacco or using the toilet. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Harmful if inhaled. Avoid breathing dust. Remove contaminated clothing and wash clothing before reuse.

Classification system:

- **NFPA ratings (scale 0 - 4)**

**HAZARD INDEX:**

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

Other hazards

- PBT: Not applicable.
- vPvB: Not applicable.

3 Composition/Information on ingredients

Chemical characterization: Mixtures

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

Dangerous components:

CAS: 8018-01-7	Mancozeb Carcinogenicity – Category 2, H351; Reproductive Toxicity - Category 1B, H360; Specific Target Organ Toxicity - Repeated Exposure - Category 2, H373; Skin Sensitizer - Category 1, H317	66.7% w/w
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CAS: 156052-68-5 zoxamide (ISO)

8.3% w/w

 Skin Sensitizer - Category 1, H317

4 First-aid measures

· **Description of first aid measures**

· **General information:**

Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

For medical emergencies call 1-888-478-0798.

· **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.

· **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** No further relevant information available.

· **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

5 Fire-fighting measures

· **Extinguishing media**

· **Suitable extinguishing agents:**

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Use fire fighting measures that suit the environment.

· **Special hazards arising from the substance or mixture**

Carbon monoxide (CO)

Sulphur dioxide (SO₂)

Hydrogen chloride (HCl)

· **Advice for firefighters**

· **Protective equipment:**

Wear self-contained respiratory protective device.

Mouth respiratory protective device.

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6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, after handling, wash thoroughly with soap and water and change into clean clothing. Wash hands with soap and water before eating, drinking, chewing gum, using tobacco or using the toilet. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Harmful if inhaled. Avoid breathing dust. Remove contaminated clothing and wash clothing before reuse.
- **Environmental precautions:**
Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
Do not apply to any body of water. Avoid drifting of spray onto any body of water or other non-target areas. Specified buffer zones should be observed.
- **Methods and material for containment and cleaning up:**
Dispose contaminated material as waste according to section 13.
Ensure adequate ventilation.
- **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**
Thorough dedusting.
Ensure good ventilation/exhaustion at the workplace.
Keep away from fire and sparks. Store in a cool, dry, well-ventilated area. Do not allow to become wet or overheated in storage: decomposition, impaired activity, or fire may result. Keep container closed when not in use. Pallets of containers should not be stacked more than three high. Provide access aisle for each two rows. Decomposition produces a foul odor; if observed, check for hot containers and immediately remove to open areas for disposal. To prevent contamination store this product away from food or feed.
 - **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 only in the original receptacle.
 - **Information about storage in one common storage facility:** Store away from foodstuffs.
 - **Further information about storage conditions:**
Store in a cool, dry, well-ventilated area.
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:** No further data; see section 7.
- **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.

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· **Additional information:**

*The lists that were valid during the creation were used as basis.
Do not re-enter treated areas within 48 hours of application.*

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/ maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

· **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· **Protection of hands:**



Protective gloves

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

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Safety glasses

· **Body protection:**

Applicators and other handlers (other than mixers and loaders) must wear:

Coveralls over long-sleeved shirt and long pants

Chemical resistant gloves

Shoes plus socks

Mixers and Loaders must wear:

Coveralls over long-sleeved shirt and long pants

Chemical resistant gloves

Shoes plus socks

Protective eyewear

Chemical-resistant apron when cleaning equipment, mixing or loading

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9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information

· Appearance:

- Form: Granulate
- Color: Brown
- Odor: Sulphurous
- Odor threshold: Not determined.

· pH-value at 20 °C (68 °F): 6.5 - 7.5

· Change in condition

- Melting point/Melting range: Undetermined.
- Boiling point/Boiling range: Undetermined.

· Flash point: Not applicable.

· Flammability (solid, gaseous): Not determined.

· Decomposition temperature: Not determined.

· Ignition temperature: 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 applicable.

· Density at 20 °C (68 °F): .500-.750 g/cm³ (4.1725-6.25875 lbs/gal)

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

· Solubility in / Miscibility with

· Water: Dispersible.

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

· Viscosity:

- Dynamic: Not applicable.
- Kinematic: Not applicable.

· 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: No further relevant information available.

· Hazardous decomposition products:

Carbon monoxide (CO)

Sulfur oxides (SO_x)

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Hydrogen chloride (HCl)

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11 Toxicological information

· Information on toxicological effects

· Acute toxicity:

· LD/LC50 values that are relevant for classification:

Oral	LD50	>5,000 mg/kg (rat)
Dermal	LD50	>5,000 mg/kg (rat)
Inhalative	LC50/4 h	>5 mg/l (rat)

· Primary irritant effect:

· **on the skin:** No irritant effect.

· **on the eye:** No irritant effect.

· **Sensitization:** Sensitization possible through skin contact.

· Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:

Harmful

Irritant

· 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.

12 Ecological information

· Toxicity

This pesticide is toxic to fish. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. For terrestrial uses, do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or disposing of wastes.

· **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 2 (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

· Results of PBT and vPvB assessment

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

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

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13 Disposal considerations

· **Waste treatment methods**

· **Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system. For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

· **Uncleaned packagings:**

· **Recommendation:**

Do not reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

· **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

· **UN-Number**

· **DOT/TDG**

Not regulated

· **ADR, IMDG, IATA**

UN3077

· **UN proper shipping name**

· **DOT/TDG**

Not regulated

· **ADR**

3077 Environmentally hazardous substance, solid, n.o.s.

· **IMDG**

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., MARINE POLLUTANT

· **IATA**

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

· **Transport hazard class(es)**

· **DOT/TDG (Transport dangerous goods):**

· **Class**

Void

· **ADR, IMDG, IATA**



· **Class**

9 Miscellaneous dangerous substances and articles

· **Label**

9

· **Packing group**

· **DOT/TDG**

Void

· **ADR, IMDG, IATA**

III

· **Environmental hazards:**

· **Marine pollutant:**

Yes

Symbol (fish and tree)

· **Special marking (ADR):**

Symbol (fish and tree)

· **Special marking (IATA):**

Symbol (fish and tree)

· **Special precautions for user**

Warning: Miscellaneous dangerous substances and articles

· **Hazard identification number (Kemler code):** 9

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· EMS Number:	F-A,S-F
· Stowage Category	A
· Stowage Code	SW23 When transported in BK3 bulk container, see 7.6.2.12 and 7.7.3.9.

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable

· **Transport/Additional information:**

· **DOT/TDG**

· **Quantity limitations** On passenger aircraft/rail: No limit
On cargo aircraft only: No limit

· **ADR**

· **Excepted quantities (EQ)** Code: E1
Maximum net quantity per inner packaging: 30 g
Maximum net quantity per outer packaging: 1000 g

· **IMDG**

· **Limited quantities (LQ)** 5 kg
· **Excepted quantities (EQ)** Code: E1
Maximum net quantity per inner packaging: 30 g
Maximum net quantity per outer packaging: 1000 g

· **UN "Model Regulation":** US DOT / Canada TDG:
Not regulated

Others:
UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
SOLID, N.O.S. 9, III

15 Regulatory information

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

· **Marketing authorization number:**

· **SARA Title III**

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

None of the ingredients are listed.

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

CAS: 8018-01-7 | Mancozeb

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

None of the ingredients are listed.

· **Canadian substance listings:**

· **Canadian Domestic Substances List (DSL)**

None of the ingredients are listed.

· **Canadian Non-Domestic Substances List (NDSL)**

None of the ingredients are listed.

· **Canadian Ingredient Disclosure list (limit 0.1%)**

None of the ingredients are listed.

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· Canadian Ingredient Disclosure list (limit 1%)

None of the ingredients are listed.

· GHS label elements

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

· Hazard pictograms



GHS07

· Signal word Warning

· Hazard-determining components of labeling:

Mancozeb
zoxamide (ISO)

· Hazard statements

H332 Harmful if inhaled.
H317 May cause an allergic skin reaction.

· Precautionary statements

P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read label before use.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves.
P302+P352 If on skin: Wash with plenty of water.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312 Call a poison center/doctor if you feel unwell.
P321 Specific treatment (see on this label).
P362+P364 Take off contaminated clothing and wash it before reuse.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· National regulations:

· Additional classification according to Decree on Hazardous Materials:

Read the label, authorized under the Pest Control Products Act, prior to using or handling the pest control product.

There are Canada-specific environmental requirements for handling, use, and disposal of this pest control product that are indicated on the label.

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

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases

H317 May cause an allergic skin reaction.
H351 Suspected of causing cancer.
H360 May damage fertility or the unborn child.

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H373 May cause damage to organs through prolonged or repeated exposure.

· **Department issuing SDS:** Supply Chain

· **Contact:** *sds@gowanco.com*

· **Date of the latest revision of the safety data sheet** 11/14/2023

· **Abbreviations and acronyms:**

ICAO: International Civil Aviation Organisation

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

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

· **Sources** *Gavel® is a registered trademark used under license by Gowan Company, LLC.*

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