

# Material Safety Data Sheet

Product Name: Gordon's Professional Turf and Ornamental Products FORMEC 80 Turf and Ornamental Fungicide

MSDS No.: 645-6

Version No.: 012

EPA Registration No.: 2217-426

## 1. Basic Information:

**Manufacturer:** PBI/Gordon Corporation  
**Address:** 1217 West 12th Street  
**City, State Zip:** Kansas City, MO 64101-1407  
**Information Contact:** Environmental, Health, & Safety Dept.  
**Information Telephone Number:** (816)421-4070  
**Emergency Contact:** Chemtrec  
**Emergency Telephone Number:** (800)424-9300



1	Health
1	Flammability
0	Reactivity
B	Pers. Protection

Last Update: 10/2/00

**Chemical State:**  Liquid  Gas  Solid  
**Chemical Type:**  Pure  Mixture

## 2. Ingredients:

 Trade Secret (ND = Not Disclosed)

CAS No.	Chemical Name	% Range	EHS	NTP	IARC	SUB Z	SARA 313	OSHA PEL	ACGIH TLV	Other Limits
8018017	Zinc and Manganese ethylene bisdithiocarbamate (Mancozeb)	80	N	N	N	N	N	NI	NI	1 mg/m3

## 3. Hazardous Identification:

Hazard Category:

 Acute  Chronic  Fire  Pressure  Reactive

Hazardous Identification Information:

Yellow powder; musty odor.

Irritant.

## 4. First Aid Measures:

Route(s) of Entry:

Contact, inhalation, ingestion.

Health Hazards (Acute and Chronic):

EYES: Contact may cause irritation.

SKIN: Contact may cause irritation or dermatitis.

INHALATION: May irritate respiratory system.

INGESTION: May irritate gastrointestinal system.

Signs and Symptoms:

NI

Medical Conditions Generally Aggravated by Exposure:

NI

Emergency First Aid Procedure:

EYES: Flush eyes with clean water for 10-15 minutes, holding lids open. If irritation persists, seek medical attention.

SKIN: Bathe and shampoo with soap and water to remove chemicals from skin and hair. Launder contaminated clothes separately, prior to reuse. If irritation persists, seek medical attention.

INHALATION: Remove victim to fresh air. Apply artificial respiration if needed. If irritation persists, seek medical attention.

INGESTION: Call a physician or Poison Control Center. Dilute by giving 2 glasses of water to drink--never give anything by mouth to an

## First Aid Measures (Continued)

unconscious person.

Other Health Warnings:

NI

## 5. Fire Fighting Measures:

Flash Point: 295°F F.P. Method:

Lower Explosive Limit: .16 oz/ft<sup>3</sup>

Upper Explosive Limit: NI

Fire Extinguishing Media:

CO<sub>2</sub>, dry chemical, water.

Special Fire Fighting Procedures:

Wear self-contained breathing apparatus and full protective gear. Use water spray to cool containers.

Unusual Fire and Explosion:

Fire produces toxic and flammable products. Auto ignition temperature of dust cloud: 590 °F; dust may explode if ignited. Remain upwind. Water from fire control may pollute surface water. If pollution occurs call local authorities.

## 6. Accidental Release Measures:

Steps to be Taken in Case Material is Released or Spilled:

Do not touch spilled product. See Section 8 for Personal Protective Equipment. Contain and collect spilled material for reuse or disposal. Place in drums; cover and label the drums. Wash area with water, if possible. Do not allow waste water to contaminate surface water.

## 7. Handling and Storage:

Precautions to be Taken:

Keep from children and domestic animals. Store product in original container in a dry, shaded, locked storage area. Provide sufficient ventilation to prevent decomposition, and dissipate heat. Store away from dampness or heat, to prevent generation of flammable vapors. Fire can occur in closely packed, unventilated piles of bags. Store bags on pallets, with aisle space between pallets. Decomposition may be

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## Handling and Storage (Continued)

detected by the presence of a foul odor and warm bags. If this is detected, remove to an open area for disposal. Do not store near food or feed, to prevent cross-contamination.

**Other Precautions:**  
NI

## 8. Exposure Controls/Personal Protection:

### Ventilation Requirements:

Mechanical ventilation is recommended if product is applied in an enclosed area. Good local ventilation is required.

### Personal Protective Equipment:

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

- Coveralls over long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

Mixers and Loaders must wear:

- Coveralls over long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks
- Protective eyewear
- Chemical-resistant apron when cleaning equipment, mixing, or loading.

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.

**PROTECTIVE CLOTHING:** Wear long sleeve shirt, long pants, shoes with socks, and chemical-resistant gloves.

**EYE PROTECTION:** Safety glasses with side shields or safety goggles.

**RESPIRATORY PROTECTION:** If exposure limits may be exceeded, wear a dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C), or a NIOSH approved respirator with any N, R, P or HE filter.

## 9. Physical and Chemical Properties:

**Boiling Point:** NI

**Melting Point:** NI

**Evaporation Rate (Butyl Acetate = 1) :** NI

**Vapor Pressure (mm Hg.):** NI

**Vapor Density (Air = 1):** NI

**Specific Gravity (H<sub>2</sub>O = 1):** 0.00000

**Solubility in Water:** Dispensible.

**Appearance and Odor:** Yellow powder; musty odor.

### Other Information:

Density at 20°C: 22-31 pounds/cubic foot

## 10. Stability and Reactivity:

### Stability:

Stable when kept dry. The moist or damp powder may bring about chemical changes which generate flammable vapors. When product is overheated, the same effect may occur.

### Incompatibility (Materials to Avoid):

Moisture, heat (see stability).

### Decomposition/By-Products:

Under fire conditions: hydrogen sulfide, carbon disulfide, oxides of

## Stability and Reactivity (Continued)

carbon, nitrogen and sulfur. Flammable vapors are generated when product is damp or overheated.

**Hazardous Polymerization:**  
Will not occur.

## 11. Toxicological Information:

Dermal LD50: >5000 mg/kg body weight

Inhalation LC50 (4H): >5.14 mg/L air

Oral LD50: >5000 mg/kg body weight

## 12. Ecological Information:

This product is toxic to fish. Drift or runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. 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 contaminate water when disposing of equipment washwaters or disposing of wastes.

## 13. Disposal Considerations:

**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.

## 14. Transport Information:

The following guidelines apply for domestic ground transport. If shipping by air or ocean, please contact our Transportation Dept.

Freight Class: Fungicides, NOI - NMFC #102120

In our current available sizes, this product does not qualify as a Hazardous Material.

## 15. Regulatory Information:

**OSHA STATUS:** This product is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200.

**TSCA STATUS:** This product is exempt from TSCA Regulation under FIFRA Section 3(2)(B)(ii) when used as a pesticide.

**CERCLA REPORTABLE QUANTITY:** None

**SARA TITLE III:**

SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES: None  
SECTION 311/312 HAZARD CATEGORIES: Immediate Health Hazard, Delayed Health Hazard  
SECTION 313 TOXIC CHEMICALS: None

**RCRA STATUS:** 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. (40 CFR 261.20-24)

## 16. Other Information:

**REASON FOR ISSUE:** To revise MSDS to the ANSI Z400.1-1998 format

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## Other Information (Continued)

NOTE: NI means not indicated.

The information and statements in this Material Safety Data Sheet are believed to accurately reflect the scientific evidence used in making the hazard determination, but is not to be construed as a warranty or representation for which we assume legal responsibility. Additional information may be necessary or desirable depending on particular, exceptional or variable conditions or circumstances of use or storage or because of locally applicable laws or government regulations. Therefore, you should use this information only as a supplement to other information available to you and must make independent determinations of the suitability of the information for your particular circumstances or conditions and of the completeness of the information available from all sources to assure both the proper use of the material described herein and the safety and health of employees.