

MATERIAL SAFETY DATA SHEET

MSDS NUMBER: 645-6 **Formec 80 Turf and Ornamental Fungicide**
 PART NUMBER: 645
 PRODUCT NAME: FORMEC 80 TURF AND ORNAMENTAL FUNGICIDE
 CAS NUMBER: 0
 CHEMICAL NAME: Fungicide EPA Reg. No. 2217-426 Revision No. 7

SECTION I

MANUFACTURER: FBI/Gordon Corporation

ADDRESS: 1217 West 12th Street
 Kansas City, MO 64101

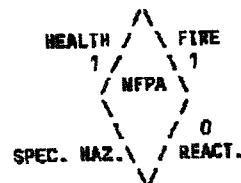
EMERGENCY TELEPHONE NUMBER: (800)424-9300

INFORMATION TELEPHONE NUMBER: (816)421-4070

DATE PREPARED: 06/21/93

HMIS RATINGS:

HEALTH: 1
 FIRE: 1
 REACTIVITY: 0
 PERSONAL PROTECTION: B



SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

CAS NUMBER	HAZARDOUS COMPONENT	NTP	IARC	SUB- PART/2	SARA 313	OSHA PEL	ACGIH TLV	OTHER LIMITS RECOMMENDED PERCENT
8018-01-7	Zinc and Manganese ethylene bisdithiocarbamate (Mancozeb)	N	N	N	N	NI	NI	1 mg/m3 80.00

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT	NI	SPECIFIC GRAVITY (H ₂ O = 1)	0.0000
VAPOR PRESSURE (mm Hg.)	NI	MELTING POINT	NI
VAPOR DENSITY (AIR = 1)	NI	EVAPORATION RATE (Butyl Acetate = 1)	NI

SOLUBILITY IN WATER: Dispersible.

APPEARANCE AND ODOR: Yellow powder; musty odor.

OTHER INFORMATION:

Density at 20 C: 22-31 lb/cu. ft.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: 295 degrees F

FLAMMABLE LIMITS: LEL: .16 oz/ft³ UEL: NI

EXTINGUISHING MEDIA: CO₂, 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 HAZARDS:

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 ground water; call local authorities if pollution occurs.

SECTION V - REACTIVITY DATA

STABILITY: Stable.

INCOMPATIBILITY (MATERIALS TO AVOID): None known.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS: Under fire conditions: hydrogen sulfide, carbon disulfide, oxides of carbon, nitrogen and sulfur.

HAZARDOUS POLYMERIZATION: Will not occur.

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SECTION VI - HEALTH HAZARD DATA

ROUTE(S) OF ENTRY: Contact, inhalation, ingestion.

HEALTH HAZARDS (ACUTE AND CHRONIC):
 EYES: Contact may cause irritation.

SKIN: Contact may cause irritation or dermatitis. Dermal LD50: >5,000 mg/kg.

INHALATION: May irritate respiratory system. LC50 (4H): >5.14 mg/L
 INGESTION: May irritate gastrointestinal system. Oral LD50: >5000 mg/kg.

SIGNS AND SYMPTOMS OF EXPOSURE: NI

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: NI

EMERGENCY AND FIRST AID PROCEDURES:

EYES: Flush eyes with large amounts of 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.

OTHER HEALTH WARNINGS: NI

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Do not touch spilled product. Wear protective clothing, safety glasses or goggles, chemical-resistant gloves and shoes. If exposure limits may be exceeded, wear a dust/mist respirator, NIOSH/MSHA approval number TC-21C. 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 ground water.

WASTE DISPOSAL METHOD: Dispose of product and waste water according to local, state and Federal regulations. This product must be disposed of as a hazardous waste, when discarded.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: 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 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: Do not apply directly to lakes, ponds, streams or other ground water. Do not contaminate ground water with rinse water from cleaning equipment.

SECTION VIII - CONTROL MEASURES

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

PERSONAL PROTECTIVE EQUIPMENT:

RESPIRATORY PROTECTION: If exposure limits may be exceeded, wear a dust/mist respirator, NIOSH/MSHA approval number TC-21C.

PROTECTIVE CLOTHING: Wear long sleeves and pants; chemical-resistant gloves and shoes.

EYE PROTECTION: Safety glasses or goggles.

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SECTION IX - ADDITIONAL INFORMATION

ADDITIONAL MANUFACTURER WARNINGS:
TSCA Status: Exempt.

Recommended Hazard Summary (Defined by 29 CFR 11910.1200):
Immediate health hazard.

NOTE: NI means not indicated.

OTHER PRECAUTIONS AND COMMENTS:

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.

**** END MSDS ****