

# Material Safety Data Sheet

Product Name: EMBARK Turf and Ornamental Growth Regulator

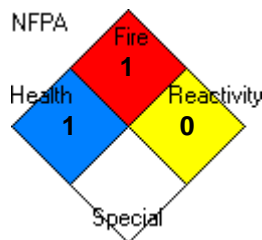
MSDS No.: 685-6

Version No.: 011

EPA Registration No.: 2217-768

## 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: 3/20/2013

**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 |
|----------|---|---------|-----|-----|------|-------|----------|----------|-----------|--------------|
| 53780362 | Diethanolamine salt of mefluidide (N-[2,4-dimethyl-5-[[trifluoromethyl]-sulfonyl] | 3.2     | N   | N   | N    | N     | N        | NI       | NI        | NI           |

## 3. Hazardous Identification:

**Hazard Category:**  
 Acute  Chronic  Fire  Pressure  Reactive

**Hazardous Identification Information:**  
 Amber liquid; no odor.

Irritant.

## 4. First Aid Measures:

**Route(s) of Entry:**  
 Contact, inhalation, ingestion.

**Health Hazards (Acute and Chronic):**  
 EYES: Contact may cause irritation and/or burning.

SKIN: Contact may cause irritation. May be absorbed through the skin.

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: Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Call a physician or Poison Control

## First Aid Measures (Continued)

Center immediately.  
**Other Health Warnings:**  
 NI

## 5. Fire Fighting Measures:

Flash Point: >200°F F.P. Method:

Lower Explosive Limit: NI

Upper Explosive Limit: NI

**Fire Extinguishing Media:**  
 Foam, CO2, dry chemical, water.

**Special Fire Fighting Procedures:**  
 None.

**Unusual Fire and Explosion:**  
 Runoff from fire control may pollute surface water; call local authorities if pollution occurs.

## 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 with inert absorbent; place in drums for disposal. Cover and label the drums. Wash area with water, if possible.

## 7. Handling and Storage:

**Precautions to be Taken:**  
 Store product in original container only and in a locked storage area. For disposal, rinse thoroughly and securely wrap original container in several layers of newspaper and discard in trash. Do not reuse empty container.

**Other Precautions:**  
 Keep out of reach of children.

## 8. Exposure Controls/Personal Protection:

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## Exposure Controls/Personal Protection (Continued)

### Ventilation Requirements:

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

### Personal Protective Equipment:

CAUTION: Harmful if swallowed or absorbed through the skin. Avoid breathing spray mist. Avoid contact with skin, eyes or clothing. Wear protective clothing including rubber gloves when handling.

**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:** 100°C

**Melting Point:** NI

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

**Vapor Pressure (mm Hg.):** <17@25°C

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

**Specific Gravity (H2O = 1):** 1.01000

**Solubility in Water:** Soluble

**Appearance and Odor:** Amber liquid; no odor.

### Other Information:

pH: 7.3-9.0

Density: 8.4 pounds/gallon

Freezing point: <35°F

## 10. Stability and Reactivity:

### Stability:

Stable.

### Incompatibility (Materials to Avoid):

This product will form a precipitate with acids.

### Decomposition/By-Products:

None known.

### Hazardous Polymerization:

Will not occur.

## 11. Toxicological Information:

Dermal LD50: >20,000 mg/kg body weight

Inhalation LC50 (4H): >8.5 mg/L

Oral LD50: >5000 mg/kg body weight.

## 12. Ecological Information:

Do not apply directly to lakes, ponds, or streams. Do not contaminate water when disposing of equipment washwater. 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 allow spray to drift onto nontarget crops or vegetation.

## 13. Disposal Considerations:

## Disposal Considerations (Continued)

**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:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or 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:** Inhibitors, Modifiers, or Regulators, Plant Growth - NMFC #101685

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

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)

**ATTENTION:** This product contains a chemical known to the state of California to cause cancer.

## 16. Other Information:

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

**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.