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Version 1

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

**Product identifier**

**Product Name** EMBARK® 2-S IVM

**Other means of identification**

**Product Code** PBI FP 686-8

**EPA Pesticide Registration Number** 2217-759

**Recommended use of the chemical and restrictions on use**

**Recommended Use** Growth regulator.

**Uses advised against** No information available.

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

**Supplier**

PBI Gordon Corporation  
1217 West 12th Street  
Kansas City, MO 64101

**Manufacturer**

PBI Gordon Corporation  
1217 West 12th Street  
Kansas City, MO 64101

**Company Name**

PBI Gordon Corporation  
1217 West 12th Street  
Kansas City, MO 64101

**Emergency telephone number**

**Emergency Telephone** Chemtrec 1-800-424-9300

## 2. HAZARDS IDENTIFICATION

**Classification**

**OSHA Regulatory Status**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

**Label elements**

**Emergency Overview**

**Warning**

**Appearance** Liquid

**Physical state** Liquid

**Odor** Odorless

**Hazards not otherwise classified (HNOC)**

Have the product label with you when calling a poison control center or doctor or going in for treatment. You may also contact 1-877-800-5556 for emergency medical treatment advice.

**Other Information**

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight-%
Diethanolamine salt of mefluidide	53780-36-2	28

\* The exact percentage (concentration) of composition has been withheld as a trade secret

## 4. FIRST AID MEASURES

### First aid measures

<b>General advice</b>	If symptoms persist, call a physician.
<b>Eye contact</b>	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.
<b>Skin Contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician.
<b>Inhalation</b>	Move to fresh air in case of accidental inhalation of vapors or decomposition products. If symptoms persist, call a physician.
<b>Ingestion</b>	Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician. Do NOT induce vomiting.
<b>Self-protection of the first aider</b>	Use personal protective equipment as required.

### Most important symptoms and effects, both acute and delayed

**Symptoms** No information available.

### Indication of any immediate medical attention and special treatment needed

**Note to physicians** Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

### Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

### Specific hazards arising from the chemical

No information available.

### Explosion data

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

### Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

**Personal precautions** Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Use personal protective equipment as required.

### Environmental precautions

**Environmental precautions** Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. See Section 12 for additional ecological information.

### Methods and material for containment and cleaning up

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Use personal protective equipment as required. Dam up. Cover liquid spill with sand, earth or other non-combustible absorbent material. Take up mechanically, placing in appropriate containers for disposal. Clean contaminated surface thoroughly. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

**Advice on safe handling** Use with local exhaust ventilation. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray.

### Conditions for safe storage, including any incompatibilities

**Storage Conditions** Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers.

**Incompatible materials** Acids.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

**Exposure Guidelines** This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

### Appropriate engineering controls

**Engineering Controls** Ensure adequate ventilation, especially in confined areas.

### Individual protection measures, such as personal protective equipment

**Eye/face protection** Tight sealing safety goggles. Face protection shield.

**Skin and body protection** Wear protective gloves and protective clothing.

**Respiratory protection** If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**General Hygiene Considerations** When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

<b>Physical state</b>	Liquid	<b>Odor</b>	Odorless
<b>Appearance</b>	Liquid	<b>Odor threshold</b>	No information available
<b>Color</b>	Dark brown		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>pH</b>	8.0-9.0	
<b>Melting point/freezing point</b>	<35 °F	
<b>Boiling point / boiling range</b>	100 °C / 212 °F	
<b>Flash point</b>	> 100 °C / > 212 °F	
<b>Evaporation rate</b>	< 1	
<b>Flammability (solid, gas)</b>	No information available	
<b>Flammability Limit in Air</b>		

<b>Upper flammability limit:</b>	No information available
<b>Lower flammability limit:</b>	No information available
<b>Vapor pressure</b>	20 mm Hg
<b>Vapor density</b>	No information available
<b>Specific Gravity</b>	1.11
<b>Water solubility</b>	Soluble in water
<b>Solubility in other solvents</b>	No information available
<b>Partition coefficient</b>	No information available
<b>Autoignition temperature</b>	No information available
<b>Decomposition temperature</b>	No information available
<b>Oxidizing properties</b>	No information available

**Other Information**

**Density** 9.1-9.3 pounds/gallon

## 10. STABILITY AND REACTIVITY

**Reactivity**

No data available

**Chemical stability**

Stable.

**Possibility of Hazardous Reactions**

None under normal processing.

**Hazardous polymerization**

Will not occur.

**Conditions to avoid**

Acids.

**Incompatible materials**

Acids.

**Hazardous Decomposition Products**

None known.

## 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure****Product Information**

**Inhalation** No data available.

**Eye contact** No data available.

**Skin Contact** No data available.

**Ingestion** No data available.

**Information on toxicological effects**

**Symptoms** No information available.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Sensitization** No information available.

**Germ cell mutagenicity** No information available.

<b>Carcinogenicity</b>	No information available.
<b>Reproductive toxicity</b>	No information available.
<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	No information available.
<b>Chronic toxicity</b>	Avoid repeated exposure.
<b>Aspiration hazard</b>	No information available.

**Numerical measures of toxicity - Product Information**

<b>Unknown Acute Toxicity</b>	28% of the mixture consists of ingredient(s) of unknown toxicity
<b>Oral LD50</b>	> 5000 mg/kg body weight
<b>Dermal LD50</b>	> 20000 mg/kg body weight
<b>Inhalation LC50</b>	> 8.5 mg/L (4 Hr.)

**12. ECOLOGICAL INFORMATION****Ecotoxicity**

28% of the mixture consists of component(s) of unknown hazards to the aquatic environment

**Persistence and degradability**

No information available.

**Bioaccumulation**

No information available.

**Other adverse effects**

No information available

**13. DISPOSAL CONSIDERATIONS****Waste treatment methods**

<b>Disposal of wastes</b>	Disposal should be in accordance with applicable regional, national and local laws and regulations.
<b>Contaminated packaging</b>	Do not reuse container, unless specified by the manufacturer.

**14. TRANSPORT INFORMATION****DOT****Description**

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

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****U.S. EPA Label Information**

**EPA Pesticide Registration Number** 2217-759

**Federal Insecticide, Fungicide, Rodenticide Act Regulations**

This chemical is a pesticide product registered by the Environmental Protection Agency 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. Following is the hazard information as required on the pesticide label:

**EPA Pesticide Label**

Caution. Keep out of the reach of children. Causes moderate eye irritation. Avoid contact with eyes or clothing. Harmful if swallowed.

**International Inventories**

<b>TSCA</b>	Not Listed
<b>DSL/NDSL</b>	Not Listed
<b>EINECS/ELINCS</b>	Not Listed
<b>ENCS</b>	Not Listed
<b>IECSC</b>	Not Listed
<b>KECL</b>	Not Listed
<b>PICCS</b>	Not Listed
<b>AICS</b>	Listed

**Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Diethanolamine salt of mefluidide										X

**US Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

**SARA 311/312 Hazard Categories**

<b>Acute health hazard</b>	Yes
<b>Chronic Health Hazard</b>	No
<b>Fire hazard</b>	No
<b>Sudden release of pressure hazard</b>	No
<b>Reactive Hazard</b>	No

**CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

**US State Regulations****U.S. State Right-to-Know Regulations****International Regulations**

Mexico - Grade

Moderate risk, Grade 2

<b>16. OTHER INFORMATION</b>
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<u>NFPA</u>	Health hazards 2	Flammability 1	Instability 0	Physical and Chemical Properties -
<u>HMIS</u>	Health hazards 2	Flammability 1	Physical hazards 0	Personal protection X

**Disclaimer**

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**End of Safety Data Sheet**