

MATERIAL SAFETY DATA SHEET

MSDS NUMBER: 686-6
 PART NUMBER: 686
 PRODUCT NAME: EMBARK 2S PLANT GROWTH REGULATOR
 CAS NUMBER: 0
 CHEMICAL NAME: Growth Regulator EPA Reg. No. 2217-759 Revision No. 5

SECTION I

MANUFACTURER: PBI/Gordon Corporation

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

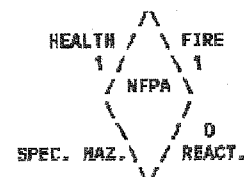
EMERGENCY TELEPHONE NUMBER: (800)426-9300

INFORMATION TELEPHONE NUMBER: (816)421-4070

DATE PREPARED: 06/18/93

HMIS RATINGS:

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



SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

CAS NUMBER	HAZARDOUS COMPONENT	SUB-		SARA		OSHA PEL	ACGIH TLV	OTHER LIMITS	
		NTP	IARC	PART/2	313			RECOMMENDED	PERCENT
53780-34-0	Diethanolamine salt of mefluidide (N-[2,4-dimethyl-5-[[trifluoromethyl]-sulfonyl]amino]phenyl]acetamide)	M	N	N	M	NI	NI	NI	28.00

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT	212 F	SPECIFIC GRAVITY (H ₂ O = 1)	1.11000
VAPOR PRESSURE (mm Hg.)	20 @ 20 C	MELTING POINT	NI
VAPOR DENSITY (AIR = 1)	NI	EVAPORATION RATE (Butyl Acetate = 1)	<1

SOLUBILITY IN WATER: Soluble

APPEARANCE AND ODOR: Dark brown liquid; no distinguishable odor.

OTHER INFORMATION:

pH: 8.0-9.0
 Percent volatile by volume: 72
 Freezing Point: 0 C
 Density at 20 C: 9.26 lb/gal.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: None to boiling.

FLAMMABLE LIMITS: LEL: NI UEL: NI

EXTINGUISHING MEDIA: Foam, CO₂, dry chemical, water.

SPECIAL FIRE FIGHTING PROCEDURES: None.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Run-off from fire control may pollute ground water; call local authorities if pollution occurs.

SECTION V - REACTIVITY DATA

STABILITY: Stable.

INCOMPATIBILITY (MATERIALS TO AVOID): This product will form a precipitate with acids.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS: None known.

HAZARDOUS POLYMERIZATION: Will not occur.

MSDS NUMBER: 686-6
PRODUCT NAME: EMBARK 2S PLANT GROWTH REGULATOR

Page: 2

SECTION VI - HEALTH HAZARD DATA

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. Dermal LD50: >20,000 mg/kg.

INHALATION: May irritate respiratory system. LC50 (4H): >8.5 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 copious 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 immediately.

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 or an organic vapor respirator, NIOSH/MSHA approval number TC-23C. Contain and collect spilled material with inert absorbent; place in drums for disposal. 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, contaminated absorbent and waste water according to local, state and Federal regulations.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Keep from children and domestic animals. Store product in original container in a locked storage area. Do not reuse empty container. 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. Do not apply product if spray may drift from target area.

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 level is high, wear a dust/mist respirator, NIOSH/MSHA approval number TC-21C or an organic vapor respirator, NIOSH/MSHA approval number TC-23C.

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

EYE PROTECTION: Safety glasses or goggles.

MSDS NUMBER: 686-6
PRODUCT NAME: ENBARK 2S PLANT GROWTH REGULATOR

Page: 3

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 ****