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Version 2

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

Product identifier

Product Name @Trimec Plus Post-Emergent Grass & Broadleaf Herbicide

Other means of identification

Product Code PBI FP 700-6
EPA Pesticide Registration Number 2217-709

Recommended use of the chemical and restrictions on use

Recommended Use Herbicide.
Uses advised against No information available.

Details of the supplier of the safety data sheet

Supplier	Manufacturer	Company Name
PBI Gordon Corporation 1217 West 12th Street Kansas City, MO 64101	PBI Gordon Corporation 1217 West 12th Street Kansas City, MO 64101	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)


Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Serious eye damage/eye irritation	Category 1
Carcinogenicity	Category 1A
Flammable liquids	Category 3

Label elements

Emergency Overview

Danger

Hazard statements
 Harmful if inhaled. Causes serious eye damage. May cause cancer.
 Flammable liquid and vapor.



Appearance Suspension **Physical state** Liquid **Odor** Amines

Precautionary Statements - Prevention

- Obtain special instructions before use
- Do not handle until all safety precautions have been read and understood
- Use personal protective equipment as required
- Avoid breathing dust/fume/gas/mist/vapors/spray
- Use only outdoors or in a well-ventilated area
- Contaminated work clothing should not be allowed out of the workplace
- Wear protective gloves
- Keep away from heat/sparks/open flames/hot surfaces. — No smoking
- Keep container tightly closed

Precautionary Statements - Response

- IF exposed or concerned: Get medical advice/attention
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
- If skin irritation or rash occurs: Get medical advice/attention
- Wash contaminated clothing before reuse
- IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
- In case of fire: Use CO₂, dry chemical, or foam for extinction

Precautionary Statements - Storage

- Store locked up
- Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal

- Dispose of contents/container to an approved waste disposal plant

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.

The low flash point of this product is due to a minor component in the mixture. Based on independent laboratory testing of similar products, this product would not sustain combustion as specified in DOT Regulation 49 CFR 173 Appendix H; however OSHA HCS 2012 flammable classifications are solely based on tested mixture flash points and boiling points.

Other Information

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight-%
Monosodium Methanearsonic acid (MSMA)	2163-80-6	18
2,4-D, dimethylamine salt	2008-39-1	5.83
MCPP-p Dimethylamine Salt	66423-09-4	2.93
Dimethylamine dicamba	2300-66-5	1.46

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

4. FIRST AID MEASURES

First aid measures

General advice

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). If symptoms persist, call a physician.

Eye contact

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. Call a physician immediately. If symptoms persist, call a physician.

Skin Contact	Immediate medical attention is not required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician.
Inhalation	Remove to fresh air. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. If not breathing, give artificial respiration. If symptoms persist, call a physician. Move to fresh air in case of accidental inhalation of vapors or decomposition products.
Ingestion	Do NOT induce vomiting. Drink plenty of water. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately. Clean mouth with water and drink afterwards plenty of water. Call a physician.
Self-protection of the first aider	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

Foam. Carbon dioxide (CO₂). Dry chemical. Water spray (fog).

Specific hazards arising from the chemical

In the event of fire and/or explosion do not breathe fumes. Thermal decomposition can lead to release of irritating and toxic gases and vapors.

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. Ensure adequate ventilation, especially in confined areas. Use personal protective equipment as required. Keep people away from and upwind of spill/leak.

Environmental precautions

Environmental precautions Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system. 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. Cover powder spill with plastic sheet or tarp to minimize spreading. Dike far ahead of liquid spill for later disposal.

Methods for cleaning up Dam up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Ensure adequate ventilation, especially in confined areas. Take precautionary measures against static discharges. 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 in properly labeled containers. Keep containers tightly closed in a cool, well-ventilated place.

Incompatible materials Acids. Zinc. Aluminum. Copper. Tin.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Monosodium Methanearsonic acid (MSMA) 2163-80-6	-	TWA: 0.5 mg/m ³ As	-
2,4-D, dimethylamine salt 2008-39-1	TWA: 10 mg/m ³ inhalable fraction S*	TWA: 10 mg/m ³	IDLH: 10 mg/m ³ , TWA: 10 mg/m ³

NIOSH IDLH *Immediately Dangerous to Life or Health*

Other Information Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Controls Local and General Ventilation.

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. Wear long-sleeved shirt, long pants, socks and shoes.

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

Physical state	Liquid	Odor	Amines
Appearance	Suspension	Odor threshold	No information available
Color	No information available		

Property	Values	Remarks • Method
pH	7.0-8.5	

Melting point/freezing point	<35 °F
Boiling point / boiling range	> 100 °C / 212 °F
Flash point	44 °C / 111 °F
Evaporation rate	< 1
Flammability (solid, gas)	No information available
Flammability Limit in Air	
Upper flammability limit:	No information available
Lower flammability limit:	No information available
Vapor pressure	<17 mm Hg@20°C
Vapor density	>1
Specific Gravity	1.177
Water solubility	Soluble in water
Solubility in other solvents	No information available
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Oxidizing properties	No information available

Other Information

Density 9.8 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

Keep from freezing.

Incompatible materials

Acids. Zinc. Aluminum. Copper. Tin.

Hazardous Decomposition Products

May emit toxic fumes under fire conditions. Hydrogen chloride. Organochlorides. Nitrogen oxides (NOx). Carbon monoxide. MSMA, in the presence of many metals, can react with nascent hydrogen to form arsine gas.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation See "Numerical measures of toxicity-product information" in this section.

Eye contact Moderately irritating to the eyes.

Skin Contact See "Numerical measures of toxicity-product information" in this section.

Ingestion See "Numerical measures of toxicity-product information" in this section.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
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Monosodium Methanearsonic acid (MSMA) 2163-80-6	= 700 mg/kg (Rat)	= 2500 mg/kg (Rabbit)	-
2,4-D, dimethylamine salt 2008-39-1	= 625 mg/kg (Rat)	= 2115 mg/kg (Rabbit)	-
Dimethylamine dicamba 2300-66-5	= 2629 mg/kg (Rat) = 1267 mg/kg (Rat)	> 2 g/kg (Rabbit)	-

Information on toxicological effects

Symptoms No information available.

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

Skin corrosion/irritation Moderate skin irritation.

Serious eye damage/eye irritation Moderate eye irritation.

Sensitization Not a skin sensitizer.

Germ cell mutagenicity No information available.

Carcinogenicity The International Agency for Research on Cancer (IARC) lists chlorophenoxy herbicides in its Group 2B (limited evidence for Carcinogenicity in humans.) The US EPA has given the chlorophenoxy Herbicides 2,4-D, 2,4-DP, MCPP, and MCPA a Class D classification (not classifiable as to human carcinogenicity.) More current 2,4-D lifetime feeding studies in rats and mice did not show carcinogenic effects and a recent World Health Organization (WHO) review of 2,4-D toxicology has concluded that 2,4-D is not a carcinogen. The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Monosodium Methanearsonic acid (MSMA) 2163-80-6		Group 1		X
2,4-D, dimethylamine salt 2008-39-1		Group 2B		
MCPP-p Dimethylamine Salt 66423-09-4		Group 2B		

IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 2B - Possibly Carcinogenic to Humans

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

Reproductive toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Chronic toxicity Repeated contact may cause allergic reactions in very susceptible persons. Avoid repeated exposure. May cause adverse liver effects. Contains a known or suspected reproductive toxin.

Target Organ Effects Central nervous system, Gastrointestinal tract (GI), kidney, Liver, Reproductive System, Respiratory system, Skin.

Aspiration hazard No information available.

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity 3% of the mixture consists of ingredient(s) of unknown toxicity

Oral LD50 6700 mg/kg

Dermal LD50 > 2400 mg/kg

Inhalation LC50 3.3 mg/L

12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxic to aquatic life with long lasting effects

74% 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

Disposal of wastes	This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261).
Contaminated packaging	Do not reuse container, unless specified by the manufacturer.
US EPA Waste Number	D001 U092 U240 See Section 2: Hazards not otherwise classified (HNOC)

14. TRANSPORT INFORMATION

DOT

Proper shipping name	For package sizes less than 206.61 gallons: product is non-regulated. For package sizes 206.61 gallons or greater: UN3082, Environmentally Hazardous Substances, Liquid, N.O.S., 9, PGIII, RQ (2,4-D)
Description	The following guidelines apply for domestic ground transport. If shipping by air or ocean, please contact our Transportation Dept. PESTICIDES, NOI, INCLUDING DEFOLIANTS, FUNGICIDES, HERBICIDES, OR INSECTICIDES NMFC 155050-6 If shipped in bulk containers (greater than 119 gallons), this product is a Marine Pollutant. When shipped as a Hazardous Material, label required is Class 9 (Miscellaneous). Placards required on bulk shipments only.

15. REGULATORY INFORMATION

U.S. EPA Label Information

EPA Pesticide Registration Number 2217-709

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

Warning. Keep out of the reach of children. Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Harmful if swallowed. Harmful if absorbed through skin. Avoid contact with skin. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

International Inventories

TSCA	Not Listed
DSL/NDSL	Not Listed
EINECS/ELINCS	Not Listed
ENCS	Not Listed
IECSC	Not Listed
KECL	Not Listed
PICCS	Not Listed
AICS	Not 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
Monosodium Methanearsonic acid (MSMA)				X			X			X
2,4-D, dimethylamine salt				X			X		X	X
Dimethylamine dicamba				X		X				X

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	SARA 313 - Threshold Values %
Monosodium Methanearsonic acid (MSMA) - 2163-80-6	1.0
Dimethylamine dicamba - 2300-66-5	1.0

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Monosodium Methanearsonic acid (MSMA) 2163-80-6		X		

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
2,4-D, dimethylamine salt 2008-39-1	100 lb		RQ 100 lb final RQ RQ 45.4 kg final RQ

