

An Employee-Owned Company

Issue Date 28-Jan-2015

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Version 6

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

Product identifier. Product Name

Pasture Pro® Weed & Brush Killer Tankables®

Other means of identificationProduct CodePBI FP 811-3EPA Pesticide Registration Number2217-703

Recommended use of the chemical and restrictions on useRecommended UseHerbicideUses advised againstNo information available

Details of the supplier of the safety data sheet

Supplier Address PBI-Gordon Corporation P.O. Box 860350 Shawnee, KS 66286 Company Name PBI-Gordon Corporation P.O. Box 860350 Shawnee, KS 66286 Manufacturer PBI-Gordon Corporation P.O. Box 860350 Shawnee, KS 66286

SAFETY DATA SHEET

Emergency telephone number

24 Hour Emergency Phone Number Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

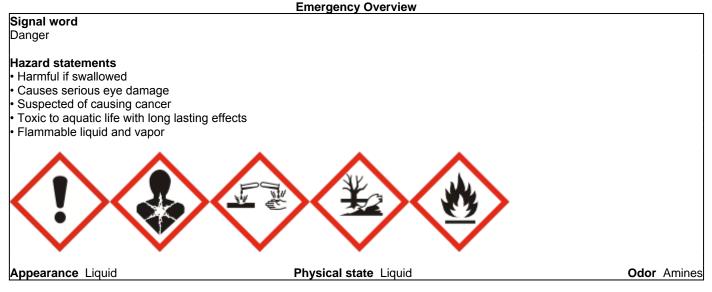
Classification

OSHA Regulatory Status

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

Acute Oral Toxicity	Category 4
Serious eye damage/eye irritation	Category 1
Carcinogenicity	Category 2
Chronic Aquatic Toxicity	Category 2
Flammable liquids	Category 3

Label elements



Precautionary Statements - Prevention

Obtain special instructions before use Do not handle until all safety precautions have been read and understood Wear protective gloves/protective clothing/eye protection/face protection Wash face, hands and any exposed skin thoroughly after handling Do not eat, drink or smoke when using this product Avoid breathing dust/fume/gas/mist/vapors/spray Use only outdoors or in a well-ventilated area Contaminated work clothing must not be allowed out of the workplace Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. 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 Immediately call a POISON CENTER or doctor Call a POISON CENTER or doctor if you feel unwell If skin irritation or rash occurs: Get medical advice/attention IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower Wash contaminated clothing before reuse IF INHALED: Remove person to fresh air and keep comfortable for breathing IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell Rinse mouth In case of fire: Use CO2, dry chemical, or foam to extinguish

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

Not applicable.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Not applicable.

<u>Mixture</u>

Chemical name	CAS-No	Weight-%
2,4-D, dimethylamine salt	2008-39-1	33.2
Diethanolamine Salt of 2,4-dichlorophenoxyacetic acid	5742-19-8	16.3
Trade Secret	Trade secret	0-1*
Trade Secret	Trade secret	0-1*

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

4. FIRST AID MEASURES

Description of first aid measures

General advice	IF exposed or concerned: Get medical advice/attention.	
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Remove contact lenses, if present and easy to do. Continue rinsing. If symptoms persist, call a physician.	
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician.	
Inhalation	Remove to fresh air. If symptoms persist, call a physician.	
Ingestion	Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician.	
Self-protection of the first aider	Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing.	
Most important symptoms and effe	ects, both acute and delayed	
Symptoms	No information available	
Indication of any immediate medic	al attention and special treatment needed	
Note to physicians	Treat symptomatically. Probable mucosal damage may contraindicate the use of gastric lavage.	
	5. FIRE-FIGHTING MEASURES	
Suitable Extinguishing Media	Dry chemical. Carbon dioxide (CO2). Water spray. Alcohol resistant foam.	
Unsuitable extinguishing media	No information available.	
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 impa	et None	
Sensitivity to static discharge	None.	
Special protective equipment for fire-fighters	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. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Do not touch or walk through spilled material.	
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	

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 Avoid release to the environment Collect spillage Dispose of contents/container to an approved waste disposal plant
Other information	Ventilate the area. Refer to protective measures listed in Sections 7 and 8.

Methods and material for containment and cleaning up

Methods for containment	Stop leak if you can do it without risk. Do not touch or walk through spilled material. Dike far ahead of spill to collect runoff water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.
Methods for cleaning up	Dam up. 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 personal protection equipment. Avoid breathing vapors or mists. Use according to package label instructions. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labeled containers. Keep out of the reach of children. Keep from freezing.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
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
Trade Secret	STEL: 15 ppm TWA: 5 ppm	TWA: 10 ppm TWA: 18 mg/m ³ (vacated) TWA: 10 ppm (vacated) TWA: 18 mg/m ³	IDLH: 500 ppm TWA: 10 ppm TWA: 18 mg/m³
Trade Secret	TWA: 1 mg/m³ inhalable fraction and vapor S*	(vacated) TWA: 3 ppm (vacated) TWA: 15 mg/m ³	TWA: 3 ppm TWA: 15 mg/m³

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 Showers Eyewash stations Ventilation systems.

Individual protection measures, such as personal protective equipment

- **Eye/face protection** Tight sealing safety goggles.
- Hand protection Chemical resistant gloves.
- Skin and body protection 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

Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties			
Physical state	Liquid		
Appearance	Liquid		
Color	Amber		
Odor	Amines		
Odor threshold	No information available		
Property_	Values	Remarks • Method	
рН	8.0		
Melting point/freezing point	<5 °F		
Boiling point / boiling range	110 °C / 230 °F		
Flash point	44 °C / 111 °F	CC (closed cup)	
Evaporation rate	< 1		
Flammability (solid, gas)	No data available	None known	
Flammability Limit in Air		None known	
Upper flammability limit:	No data available		
Lower flammability limit:	No data available		
Vapor pressure	<17 mm Hg		
Vapor density	>1		
Specific Gravity	1.1865		
Water solubility	Soluble in water		
Solubility in other solvents	No data available	None known	
Partition coefficient	No data available	None known	
Autoignition temperature	No data available	None known	
Decomposition temperature	No data available	None known	
Other Information			
Other Information	0.891 poundo/gollop		
Liquid Density	9.881 pounds/gallon		

Bulk density

9.881 pounds/gallon No information available

10. STABILITY AND REACTIVITY

Reactivity

No information available.

Stability

Stable under recommended storage conditions

Possibility of hazardous reactions

None under normal processing.

Hazardous polymerization

Will not occur.

Conditions to avoid

Keep out of reach of children.

Incompatible materials

Strong acids. Strong bases. Strong oxidizing agents.

Hazardous decomposition products

May emit toxic fumes under fire conditions. Hydrogen chloride. Nitrogen oxides (NOx). Carbon monoxide.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation	May cause irritation.
Eye contact	Causes serious eye damage.
Skin contact	May cause irritation.
Ingestion	Harmful if swallowed.

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
2,4-D, dimethylamine salt 2008-39-1	= 625 mg/kg (Rat)	= 2115 mg/kg (Rabbit)	-
Trade Secret	= 698 mg/kg (Rat)	= 3900 mg/kg(Rat)	= 4540 ppm (Rat)6 h
Trade Secret	= 620 µL/kg (Rat) = 780 mg/kg (= 11.9 mL/kg (Rabbit) = 7640	-
	Rat)	μL/kg (Rabbit)	

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Acute toxicity

Numerical measures of toxicity - Product Information

<u>Unknown Toxicity</u> 62 % of the mixture consists of ingredient(s) of unknown toxicity

LD50 Oral	= 1545 mg/kg (rat)
LD50 Dermal	> 2000 mg/kg (rabbit)
LC50 Inhalation (DUST)	> 2.04 mg/L (4 Hr.) Rat

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

Skin corrosion/irritation	May cause skin irritation.
Serious eye damage/eye irritation	Risk of serious damage to eyes.
Respiratory or skin 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.

Chemical name	ACGIH	IARC	NTP	OSHA
2,4-D, dimethylamine salt 2008-39-1	-	Group 2B	-	-
Diethanolamine Salt of 2,4-dichlorophenoxyacetic acid	-	Group 2B	-	-

5742-19-8					
Trade Secret	A3	Group 2B	-	Х	
Legend ACGIH (American Conference of Governmental Industrial Hygienists) A3 - Animal Carcinogen IARC (International Agency for Research on Cancer) Group 2B - Possibly Carcinogenic to Humans OSHA (Occupational Safety and Health Administration of the US Department of Labor) X - Present					
Reproductive toxicity	No information	No information available.			
STOT - single exposure	No information	No information available.			
STOT - repeated exposu	re No information	No information available.			
Target Organ Effects	Central nerve	Central nervous system, Eyes, Respiratory system, Skin.			

12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxic to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Trade Secret	9: 96 h Pseudokirchneriella subcapitata mg/L EC50	210: 96 h Poecilia reticulata mg/L LC50 static 111 - 125: 96 h Oncorhynchus mykiss mg/L LC50 120: 96 h Oncorhynchus mykiss mg/L LC50 static 127 - 349: 96 h Poecilia reticulata mg/L LC50 semi-static 396: 96 h Brachydanio rerio mg/L LC50 static		88.7: 48 h Daphnia magna Straus mg/L EC50
Trade Secret	2.1 - 2.3: 96 h Pseudokirchneriella subcapitata mg/L EC50 7.8: 72 h Desmodesmus subspicatus mg/L EC50	1200 - 1580: 96 h Pimephales promelas mg/L LC50 static 4460 - 4980: 96 h Pimephales promelas mg/L LC50 flow-through 600 - 1000: 96 h Lepomis macrochirus mg/L LC50 static	EC50 = 73 mg/L 5 min EC50 > 16 mg/L 16 h	55: 48 h Daphnia magna mg/L EC50

Persistence and degradability No information available.

Bioaccumulation	No information available.
Other adverse effects	No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from residues/unused products	Should not be released into the environment. Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated packaging	Do not reuse empty containers.
US EPA Waste Number	D001, See Section 2: Hazards not otherwise classified (HNOC).

14. TRANSPORT INFORMATION

Note:

Products under 30 gallons not regulated by DOT. Below are designations for products over 30 gallons. See RQ

DOT	UN3082
UN/ID no.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Proper shipping name	9
Hazard class	III
Packing group	2,4-D, dimethylamine salt: RQ (lb)= 301.00=30 gallons
Reportable Quantity (RQ)	8, 146, 173, 335, IB3, T4, TP1, TP29
Special Provisions	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2,4-D,
Description	dimethylamine salt), 9, III, Marine pollutant
TDG	UN3082
UN/ID no.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Proper shipping name	9
Hazard class	III
Packing group	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2,4-D,
Description	dimethylamine salt), 9, III
MEX	UN3082
UN/ID no.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Proper shipping name	9
Hazard class	274, 331, 335
Special Provisions	III
Packing group	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2,4-D,
Description	dimethylamine salt), 9, III
ICAO (air)	UN3082
UN/ID no.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Proper shipping name	9
Hazard class	III
Packing group	A97, A158, A197
Special Provisions	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2,4-D,
Description	dimethylamine salt), 9, III
IATA UN number UN proper shipping name Transport hazard class(es) Packing group Special Provisions Description	Limited quantity applies with an inner packaging less than 5 L or gross package weight less than 30 kg. UN3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. 9 III A97, A158, A197 UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2,4-D, dimethylamine salt), 9, III
IMDG UN number UN proper shipping name Transport hazard class(es) Packing group EmS-No. Special Provisions Description	Limited quantity applies with an inner packaging less than 5 L or gross package weight less than 30 kg. UN3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. 9 III F-A, S-F 274, 335, 969 UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2,4-D, DIMETHYLAMINE SALT), 9, III, MARINE POLLUTANT

15. REGULATORY INFORMATION

U.S. EPA Label Information

EPA Pesticide Registration Number 2217-703

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

Danger. Keep out of the reach of children.

Hazards to Humans and Domestic Animals:

DANGER. Corrosive. Causes irreversible eye damage. Harmful if swallowed. Harmful if absorbed through skin. Harmful if inhaled. Do not get in eyes or on clothing. Avoid contact with skin. Avoid breathing spray mist or vapor. Environmental Hazards: This pesticide is toxic to fish and aquatic invertebrates. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment wash waters or rinsate. This chemical has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination. Application around a cistern or well may result in contamination of drinking water or groundwater.

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

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.

of onomidale which are babjeet to the reporting requiremente of the rise and rise reduce of reducing requiremente		
Chemical name	SARA 313 - Threshold Values %	
Trade Secret -	1.0	

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

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
Trade Secret	1000 lb	-	-	Х

<u>CERCLA</u>

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	Extremely Hazardous Substances RQs
2,4-D, dimethylamine salt 2008-39-1	100 lb	-
Diethanolamine Salt of 2,4-dichlorophenoxyacetic acid 5742-19-8	100 lb	-
Trade Secret	1000 lb	-
Trade Secret	100 lb	-

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals.

Chemical name	California Proposition 65	
Trade Secret -	Carcinogen	

U.S. State Right-to-Know Regulations

US State Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Trade Secret	Х	-	Х
Trade Secret	Х	Х	Х
Trade Secret	Х	Х	Х

16. OTHER INFORMATION

NFPA	Health hazards 3	Flammability 1	Instability 0	Physical and Chemical Properties -
HMIS	Health hazards 3 *	Flammability 1	Physical hazards 0	Personal protection X
Chronic Hazard Star Legend	* = Chronic	Health Hazard	-	-

Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of PBI Gordon Corporation's knowledge, information and belief at the date of this publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process, unless specified in the text. PBI GORDON CORPORATION MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. Given the variety of factors that can affect the use and application of this product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the product to determine whether it is fit for a particular purpose and suitable for user's method of use or application. Each user is also responsible for evaluating the conditions of use and designing the appropriate protective mechanisms to prevent employee exposures, property damage, or release to the environment. PBI Gordon Corporation assumes no responsibility for injury to the recipient or third persons, or for any damage to any property resulting from misuse of the product.

End of Safety Data Sheet