

Issue Date 17-May-2016

Revision Date 08-Sep-2025

Version 1

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

### Product identifier.

**Product Name** Brush Killer for Hard-to-Kill Brush

### Other means of identification

**Product Code** PBI FP 251-3

**EPA Pesticide Registration Number** 2217-952

### 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 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

### Emergency telephone number

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

**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 Inhalation Toxicity - Gases	Category 3
Acute Inhalation Toxicity - Dusts and Mists	Category 4
Serious eye damage/eye irritation	Category 2A
Skin Sensitization	Category 1
Carcinogenicity	Category 2
Aspiration hazard	Category 1
Acute Aquatic Toxicity	Category 2
Chronic Aquatic Toxicity	Category 2

### Label elements

### **Emergency Overview**

#### **Signal word**

Danger

#### **Hazard statements**

- Toxic if inhaled
- Causes serious eye irritation
- May cause an allergic skin reaction
- Suspected of causing cancer
- Toxic to aquatic life with long lasting effects
- May be fatal if swallowed and enters airways

**Appearance** Liquid**Physical state** Liquid**Odor** Aromatic**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  
Use only outdoors or in a well-ventilated area  
Wash face, hands and any exposed skin thoroughly after handling  
Avoid breathing dust/fume/gas/mist/vapors/spray  
Contaminated work clothing must not be allowed out of the workplace

**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 eye irritation persists: Get medical advice/attention  
IF ON SKIN: Wash with plenty of water and soap  
If skin irritation or rash occurs: Get medical advice/attention  
Wash contaminated clothing before reuse  
Call a POISON CENTER or doctor  
IF INHALED: Remove person to fresh air and keep comfortable for breathing  
IF SWALLOWED: Immediately call a POISON CENTER or doctor  
Do NOT induce vomiting

**Precautionary Statements - Storage**

Store in a well-ventilated place. Keep container tightly closed  
Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

Not applicable

**Other information**

May be harmful if swallowed. May be harmful in contact with skin.

**3. COMPOSITION/INFORMATION ON INGREDIENTS****Substance**

Not applicable.

**Mixture**

Chemical name	CAS-No	Weight-%
Trade Secret	Trade secret	15-40
2,4-D 2-Ethylhexyl ester	1928-43-4	15.97
Triclopyr BEE, butoxyethyl ester	64700-56-7	8.40
Trade Secret	Trade secret	1-5
Trade Secret	Trade secret	1-5
Dicamba	1918-00-9	1.22

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

**4. FIRST AID MEASURES****Description of first aid measures**

<b>General advice</b>	If symptoms persist, call a physician. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing.
<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 breathing is irregular or stopped, administer artificial respiration. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. If symptoms persist, call a physician.
<b>Ingestion</b>	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.
<b>Self-protection of the first aider</b>	Use personal protective equipment as required.

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

<b>Symptoms</b>	No information available
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**Indication of any immediate medical attention and special treatment needed**

<b>Note to physicians</b>	Treat symptomatically. Contains petroleum distillate - vomiting may cause aspiration pneumonia.
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**5. FIRE-FIGHTING MEASURES**

<b><u>Suitable Extinguishing Media</u></b>	Foam. Carbon dioxide (CO2). Dry chemical. Water fog.
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<b><u>Unsuitable extinguishing media</u></b>	No information available.
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<b><u>Specific hazards arising from the chemical</u></b>	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.
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**Explosion data**

**Sensitivity to mechanical impact** 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**

Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

**Environmental precautions**

**Environmental precautions**

Prevent entry into waterways, sewers, basements or confined areas Do not flush into surface water or sanitary sewer system Prevent product from entering drains Prevent further leakage or spillage if safe to do so See Section 12 for additional ecological information

**Other information**

For further specification, refer to section 8 of the SDS.

**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 noncombustible absorbent material. Take up mechanically, placing in appropriate containers for disposal. Clean contaminated surface thoroughly.

## 7. HANDLING AND STORAGE

**Precautions for safe handling**

**Advice on safe handling**

Avoid contact with skin, eyes or clothing. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray. Use with local exhaust ventilation.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions**

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

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Control parameters****Exposure Limits**

The following ingredients are the only ingredients of the product above the cut-off level (or level that contributes to the hazard classification of the mixture) which have an exposure limit applicable in the region for which this safety data sheet is intended or other recommended limit. At this time, the other relevant constituents have no known exposure limits from the sources listed here

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Trade Secret	TWA: 20 ppm	TWA: 100 ppm TWA: 300 mg/m <sup>3</sup> (vacated) S* (vacated) Ceiling: 50 ppm (vacated) Ceiling: 150 mg/m <sup>3</sup>	IDLH: 1400 ppm Ceiling: 50 ppm Ceiling: 150 mg/m <sup>3</sup>

**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. Face protection shield.

**Hand protection**

Wear suitable gloves. Chemical resistant gloves.

**Skin and body protection**

Wear suitable 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. Remove and wash contaminated clothing before reuse. 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
Appearance	Liquid
Color	Amber
Odor	Aromatic
Odor threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	No information available	
Melting point/freezing point		None known
Boiling point / boiling range	No data available	None known
Flash point	> 100 °C / 212 °F	Pensky-Martens Closed Cup (PMCC)
Evaporation rate	No data available	None known
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	No data available	None known
Vapor density	No data available	None known
Specific Gravity	0.93210	
Water solubility	Emulsifiable	
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

Liquid Density	7.77 pounds/gallon
Bulk density	No information available

## 10. STABILITY AND REACTIVITY

### Reactivity

No data available.

### Stability

No information available

### Possibility of hazardous reactions

None under normal processing.

### Hazardous polymerization

Will not occur.

### Conditions to avoid

Keep out of reach of children.

### Incompatible materials

None known based on information supplied.

### 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

#### Product Information

<b>Inhalation</b>	Aspiration into lungs can produce severe lung damage. May cause pulmonary edema. Pulmonary edema can be fatal. Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.
<b>Eye contact</b>	May cause irritation. Specific test data for the substance or mixture is not available. Causes serious eye irritation. (based on components). May cause redness, itching, and pain.
<b>Skin contact</b>	May cause sensitization by skin contact. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. (based on components). Repeated exposure may cause skin dryness or cracking. Specific test data for the substance or mixture is not available. May cause irritation. Prolonged contact may cause redness and irritation. May be harmful in contact with skin.
<b>Ingestion</b>	Potential for aspiration if swallowed. May cause lung damage if swallowed. Aspiration may cause pulmonary edema and pneumonitis. May be fatal if swallowed and enters airways. Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

#### Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Trade Secret	> 5000 mg/kg ( Rat )	> 2000 mg/kg ( Rabbit )	> 5.2 mg/L ( Rat ) 4 h
2,4-D 2-Ethylhexyl ester 1928-43-4	= 300 mg/kg ( Rat )	> 2000 mg/kg ( Rabbit )	> 5.4 mg/L ( Rat ) 4 h
Trade Secret	= 1870 µL/kg ( Rat )	-	-
Trade Secret	= 700 mg/kg ( Rat )	= 3402 mg/kg ( Rabbit )	> 8000 ppm ( Rat ) 4 h
Dicamba 1918-00-9	= 1039 mg/kg ( Rat )	= 1716 mg/kg ( Rabbit )	> 5.14 mg/L ( Rat ) 4 h

### Symptoms related to the physical, chemical and toxicological characteristics

**Symptoms** No information available.

#### Acute toxicity

#### Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (inhalation-gas) 1199 mg/L

#### Unknown Toxicity

44 % of the mixture consists of ingredient(s) of unknown toxicity

44 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)

44 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)

**LD50 Oral** 3129 mg/kg (female rats)  
**LD50 Dermal** > 5000 mg/kg (female rats) (male rats)  
**LC50 Inhalation (DUST)** > 2.06 mg/L (female rats) (male rats)

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

<b>Skin corrosion/irritation</b>	May cause skin irritation.
<b>Serious eye damage/eye irritation</b>	Classification based on data available for ingredients. Causes serious eye irritation.
<b>Respiratory or skin sensitization</b>	May cause sensitization by skin contact.
<b>Germ cell mutagenicity</b>	No information available.
<b>Carcinogenicity</b>	Classification based on data available for ingredients.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
2,4-D 2-Ethylhexyl ester 1928-43-4	-	Group 2B	-	X

**Legend**

**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

<b>Reproductive toxicity</b>	No information available.
<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	No information available.
<b>Target Organ Effects</b>	Respiratory system, Eyes, Skin, Central nervous system.
<b>Aspiration hazard</b>	May be fatal if swallowed and enters airways.

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity** Toxic to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Trade Secret	-	2.2: 96 h <i>Lepomis macrochirus</i> mg/L LC50 static 2.4: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 static 45: 96 h <i>Pimephales promelas</i> mg/L LC50 flow-through	-	-
2,4-D 2-Ethylhexyl ester 1928-43-4	-	6 - 8.7: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 flow-through 11.5: 96 h <i>Lepomis macrochirus</i> mg/L LC50 static 7.8: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 static	-	-
Trade Secret	-	1.8: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50	-	-
Trade Secret	500: 72 h <i>Desmodesmus subspicatus</i> mg/L EC50 500: 96 h <i>Desmodesmus subspicatus</i> mg/L EC50	100000 - 500000: 96 h <i>Lepomis macrochirus</i> µg/L LC50 static 1730 - 1910: 96 h <i>Pimephales promelas</i> mg/L LC50 static 1740: 96 h <i>Pimephales promelas</i> mg/L LC50 flow-through 1910000: 96 h <i>Pimephales</i>	EC50 = 2041.4 mg/L 5 min EC50 = 2186 mg/L 30 min EC50 = 3980 mg/L 24 h EC50 = 4400 mg/L 17 h	1897 - 2072: 48 h <i>Daphnia magna</i> mg/L EC50 Static 1983: 48 h <i>Daphnia magna</i> mg/L EC50



		promelas µg/L LC50 static		
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**Persistence and degradability** No information available.

**Bioaccumulation** No information available.  
**Component Information**

**Other adverse effects** No information available.

### 13. DISPOSAL CONSIDERATIONS

#### **Waste treatment methods**

**Waste from residues/unused products** Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated packaging** Do not reuse empty containers.

### 14. TRANSPORT INFORMATION

**DOT** Not regulated

**TDG** Not regulated

**MEX** Not regulated

**ICAO (air)** Limited quantity applies with an inner packaging less than 5 L or gross package weight less than 30 kg.  
**UN/ID no.** UN3082  
**Proper shipping name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
**Hazard class** 9  
**Packing group** III  
**Special Provisions** A97, A158, A197, A215  
**Description** UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2,4-D), 9, PGIII, LIMITED QUANTITY

**IATA** Limited quantity applies with an inner packaging less than 5 L or gross package weight less than 30 kg.  
**UN number** UN3082  
**UN proper shipping name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
**Transport hazard class(es)** 9  
**Packing group** III  
**Special Provisions** A97, A158, A197, A215  
**Description** UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2,4-D), 9, PGIII, LIMITED QUANTITY

**IMDG** Limited quantity applies with an inner packaging less than 5 L or gross package weight less than 30 kg.  
**UN number** UN3082  
**UN proper shipping name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
**Transport hazard class(es)** 9  
**Packing group** III  
**EmS-No.** F-A, S-F  
**Special Provisions** 274, 335, 375, 969  
**Description** UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2,4-D), 9, III, MARINE POLLUTANT

## 15. REGULATORY INFORMATION

### U.S. EPA Label Information

**EPA Pesticide Registration Number** 2217-952

### **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 reach of children Hazards to Humans and Domestic Animals Caution: Causes Moderate eye irritation. Avoid contact with eyes, skin, or clothing Harmful if swallowed. 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 water or rinsate. These chemicals (triclopyr, 2,4-D, and dicamba) have properties and characteristics associated with chemicals detected in groundwater. The use of these chemicals in areas where soil 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.

### **International Inventories**

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

### **Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDL** - 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.

Chemical name	SARA 313 - Threshold Values %
2,4-D, 2-ethylhexyl ester - 1928-43-4	0.1
Triclopyr BEE, butoxyethyl ester - 64700-56-7	1.0
Trade Secret -	1.0
Dicamba - 1918-00-9	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	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous
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	Quantities			Substances
2,4-D 2-Ethylhexyl ester 1928-43-4	100 lb	-	-	-
Dicamba 1918-00-9	1000 lb	-	-	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	Extremely Hazardous Substances RQs
2,4-D 2-Ethylhexyl ester 1928-43-4	100 lb	-
Trade Secret	5000 lb	-
Dicamba 1918-00-9	1000 lb	-

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

Chemical name	New Jersey	Massachusetts	Pennsylvania
2,4-D 2-Ethylhexyl ester 1928-43-4	X	-	-
Triclopyr BEE, butoxyethyl ester 64700-56-7	X	-	X
Trade Secret	X	X	X
Dicamba 1918-00-9	X	X	X

**16. OTHER INFORMATION**

<b>NFPA</b>	Health hazards 2	Flammability 1	Instability 0	Physical and Chemical Properties -
<b>HMIS</b>	Health hazards 2	Flammability 1	Physical hazards 0	Personal protection X
<i>Chronic Hazard Star Legend</i>		* = Chronic Health Hazard		

**Disclaimer**

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End of Safety Data Sheet