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Version 1.1

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

**Product identifier.**

**Product Name** Barrier Year-Long Vegetation Control Concentrate

**Other means of identification**

**Product Code** PBI FP 8121072

**EPA Pesticide Registration Number** 2217-1066

**Product Size** 4/1 Gallon

**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

## 2. HAZARDS IDENTIFICATION

**Classification**

**OSHA Regulatory Status**

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

Reproductive toxicity	Category 2
Acute Aquatic Toxicity	Category 2
Chronic Aquatic Toxicity	Category 2
Flammable liquids	Category 4

**Label elements**

**Emergency Overview**

**Signal word**

Warning

**Hazard statements**

- Suspected of damaging fertility or the unborn child
- Toxic to aquatic life with long lasting effects
- Combustible liquid



**Appearance** Cloudy

**Physical state** Liquid

**Odor** Strong Solvent

**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  
Avoid breathing dust/fume/gas/mist/vapors/spray  
Contaminated work clothing must not be allowed out of the workplace  
Keep away from flames and hot surfaces. - No smoking

**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 ON SKIN: Wash with plenty of water and soap  
Wash contaminated clothing before reuse  
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.

**Other information**

Not applicable.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**Substance**

Not applicable.

**Mixture**

Chemical name	CAS-No	Weight-%
2,4-D, 2-ethylhexyl ester	1928-43-4	2.28
Imazapyr, isopropylamine salt	81510-83-0	1.25
Fluazifop-p-butyl	79241-46-6	0.53
Dicamba	1918-00-9	0.2
Pyraflufen-ethyl	129630-19-9	0.0078

\* 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. Show this safety data sheet to the doctor in attendance.

**Eye contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. If symptoms persist, call a physician.

**Skin contact**

Wash skin with soap and water. If symptoms persist, call a physician.

**Inhalation**

Remove to fresh air.

**Ingestion** Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician.

**Self-protection of the first aider** Avoid contact with skin, eyes or clothing. 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** Dry chemical. Carbon dioxide (CO2). Water spray. Alcohol resistant foam.

**Unsuitable extinguishing media** No information available.

**Specific hazards arising from the chemical** Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray.

**Explosion data**

**Sensitivity to mechanical impact** None.

**Sensitivity to static discharge** May be sensitive.

**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** Take precautionary measures against static discharges. Avoid contact with skin, eyes or clothing. Use personal protective equipment as required.

**Environmental precautions**

**Environmental precautions** Avoid release to the environment Prevent entry into waterways, sewers, basements or confined areas Do not flush into surface water or sanitary sewer system Prevent further leakage or spillage if safe to do so Prevent product from entering drains Collect spillage Dispose of contents/container to an approved waste disposal plant 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** Take precautionary measures against static discharges. 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** 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.

### Conditions for safe storage, including any incompatibilities

**Storage Conditions** Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Keep in properly labeled containers.

## 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
2,4-D, 2-ethylhexyl ester 1928-43-4	TWA: 10 mg/m <sup>3</sup> inhalable fraction S*	TWA: 10 mg/m <sup>3</sup>	IDLH: 100 mg/m <sup>3</sup> , TWA: 10 mg/m <sup>3</sup>

### 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. Wash hands and face 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**

<b>Physical state</b>	Liquid
<b>Appearance</b>	Cloudy
<b>Color</b>	Light Yellow Green
<b>Odor</b>	Strong Solvent
<b>Odor threshold</b>	No information available

<b><u>Property</u></b>	<b><u>Values</u></b>	<b><u>Remarks • Method</u></b>
<b>pH</b>	6.0-6.6	
<b>Melting point/freezing point</b>		None known
<b>Boiling point / boiling range</b>	100 °C / 212 °F	
<b>Flash point</b>	< 82.4 °C / 180 °F	
<b>Evaporation rate</b>	No data available	None known
<b>Flammability (solid, gas)</b>	No data available	None known
<b>Flammability Limit in Air</b>		None known
<b>Upper flammability limit:</b>	No data available	
<b>Lower flammability limit:</b>	No data available	
<b>Vapor pressure</b>	No data available	None known
<b>Vapor density</b>	No data available	None known
<b>Specific Gravity</b>	No data available	None known
<b>Water solubility</b>	Soluble in water	
<b>Solubility in other solvents</b>	No data available	None known
<b>Partition coefficient</b>	No data available	None known
<b>Autoignition temperature</b>	No data available	None known
<b>Decomposition temperature</b>	No data available	None known

**Other Information**

<b>Liquid Density</b>	8.51 lb/gal
<b>Bulk density</b>	No information available

## 10. STABILITY AND REACTIVITY

**Reactivity**

No information available.

**Stability**

No information available

**Possibility of hazardous reactions**

None under normal processing.

**Conditions to avoid**

Heat, flames and sparks.

**Incompatible materials**

None known based on information supplied.

**Hazardous decomposition products**

None known based on information supplied.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

#### Product Information

<b>Inhalation</b>	Specific test data for the substance or mixture is not available.
<b>Eye contact</b>	Specific test data for the substance or mixture is not available.
<b>Skin contact</b>	May cause sensitization by skin contact. Specific test data for the substance or mixture is not available. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. (based on components).
<b>Ingestion</b>	Specific test data for the substance or mixture is not available.

#### Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
2,4-D, 2-ethylhexyl ester 1928-43-4	= 300 mg/kg ( Rat )	> 2000 mg/kg ( Rabbit )	> 5.4 mg/L ( Rat ) 4 h
Imazapyr, isopropylamine salt 81510-83-0	> 10 g/kg ( Rat )	-	-
Fluazifop-p-butyl 79241-46-6	= 2712 mg/kg ( Rat )	-	-
Dicamba 1918-00-9	= 1039 mg/kg ( Rat )	= 1716 mg/kg ( Rabbit )	-

### 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

<b>ATEmix (oral)</b>	> 5000 mg/kg
<b>ATEmix (dermal)</b>	>5000 mg/kg
<b>ATEmix (inhalation-dust/mist)</b>	> 2.11 (rat) mg/L

#### Unknown Toxicity

- 10 % of the mixture consists of ingredient(s) of unknown toxicity
- 10 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
- 10 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
- 10 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)
- 10 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)
- 10 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

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

<b>Skin corrosion/irritation</b>	No information available.
<b>Serious eye damage/eye irritation</b>	No information available.
<b>Respiratory or skin sensitization</b>	No information available.
<b>Germ cell mutagenicity</b>	No information available.

**Carcinogenicity** No information available.

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

**Reproductive toxicity** Classification based on data available for ingredients.

**STOT - single exposure** No information available.

**STOT - repeated exposure** No information available.

**12. ECOLOGICAL INFORMATION**

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

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
2,4-D, 2-ethylhexyl ester 1928-43-4	-	6 - 8.7: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 11.5: 96 h Lepomis macrochirus mg/L LC50 static 7.8: 96 h Oncorhynchus mykiss mg/L LC50 static	-	-

**Persistence and degradability** No information available.

**Bioaccumulation** There is no data for this product.

**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.

**US EPA Waste Number** U240

## 14. TRANSPORT INFORMATION

<u>DOT</u>	Not regulated
<u>TDG</u>	Not regulated
<u>MEX</u>	Not regulated
<u>ICAO (air)</u>	Not regulated
<u>IATA</u>	Not regulated
<u>IMDG</u>	Not regulated

## 15. REGULATORY INFORMATION

### U.S. EPA Label Information

EPA Pesticide Registration Number 2217-1066

### EPA Pesticide Label

CAUTIONKEEP OUT OF REACH OF CHILDRENHazards to Humans & Domestic Animals: CAUTION: Avoid contact with skin, eyes or clothing. Wear long-sleeved shirt and long pants, socks, and shoes. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

### Environmental hazard

This pesticide is toxic to plants, fish and aquatic invertebrates. To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area. Rinsing application equipment over the treated area will help avoid run off to water bodies or drainage systems. Groundwater Advisory: These chemicals (2,4-D, Fluazifop-p-butyl and dicamba) have properties and characteristics associated with chemicals detected in groundwater. These chemicals may leach into ground water if used in areas where soils are permeable, particularly where the water table is shallow. Application around a cistern or well may result in contamination of drinking water or groundwater. Non-Target Organism Advisory: This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift. Surface Water Advisory: This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having high potential for reaching surface water via runoff.

**Physical or Chemical Hazards** Combustible. Do not use or store near heat or open flame.

### 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>	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

**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**

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
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	-
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
Trade Secret	-	-	X
2,4-D, 2-ethylhexyl ester 1928-43-4	X	-	-

**16. OTHER INFORMATION**

**NFPA**                      Health hazards 2              Flammability 2              Instability 0              Physical and Chemical Properties -

**HMIS**                      Health hazards 2\*              Flammability 2              Physical hazards 0              Personal protection X

*Chronic Hazard Star Legend                      \* = Chronic Health Hazard*

**Disclaimer**

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**End of Safety Data Sheet**