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Version 3

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

Product identifier

Product Name Gordon's® BRUSHMASTER® Herbicide

Other means of identification

Product Code PBI FP 7741081
EPA Pesticide Registration Number 2217-774
Product Size 12/1 U. S. Qt.

Recommended use of the chemical and restrictions on use

Recommended Use Herbicide.
Uses advised against No information available.

4665-05

Details of the supplier of the safety data sheet

Supplier PBI Gordon Corporation
 1217 West 12th Street
 Kansas City, MO 64101

Manufacturer PBI Gordon Corporation
 1217 West 12th Street
 Kansas City, MO 64101

Company Name 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 dermal toxicity	Category 4
Acute Inhalation Toxicity - Gases	Category 3
Serious eye damage/eye irritation	Category 1
Aspiration Toxicity	Category 1
Chronic Aquatic Toxicity	Category 2
Flammable liquids	Category 4

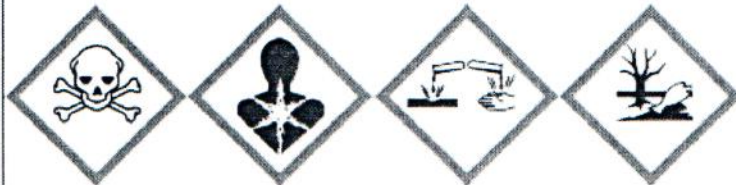
Label elements

Emergency Overview

Danger

Hazard statements

Harmful in contact with skin. Toxic if inhaled. Causes serious eye damage. Toxic to aquatic life with long lasting effects. May be fatal if swallowed and enters airways.
 Combustible liquid.



Appearance Clear

Physical state Liquid

Odor Esters

- Precautionary Statements - Prevention**
- Wear protective gloves/protective clothing/eye protection/face protection
 - 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
 - Avoid release to the environment
 - Keep away from heat/sparks/open flames/hot surfaces. — No smoking
 - Keep cool

Precautionary Statements - Response

- 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 soap and water
- Call a POISON CENTER or doctor/physician if you feel unwell
- Wash contaminated clothing before reuse
- If skin irritation or rash occurs: Get medical advice/attention
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
- Call a POISON CENTER or doctor/physician
- IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
- Do NOT induce vomiting
- In case of fire: Use CO₂, dry chemical, or foam for extinction
- Collect spillage

Precautionary Statements - Storage

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

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. Number	Weight %
Trade Secret	Proprietary	20-30*
2,4-D, 2-ethylhexyl ester	1928-43-4	18.85
2,4-DP Ethylhexyl ester	618446-52-9	9.24
3,6-Dichloro-o-anisic acid (Dicamba)	1918-00-9	3.01

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

4. FIRST AID MEASURES

First aid measures

General advice

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.

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. If symptoms

Methods for cleaning up
Cover liquid spill with sand, earth or other non-combustible absorbent material. Cover powder spill with plastic sheet or tarp to minimize spreading. Pick up and transfer to properly labeled containers. Soak up with inert absorbent material. Dam up. Take

Methods for containment
Prevent further leakage or spillage if safe to do so

Methods and material for containment and cleaning up

Environmental precautions
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. See Section 12 for additional ecological information.

Environmental precautions

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

Personal precautions, protective equipment and emergency procedures

6. ACCIDENTAL RELEASE MEASURES

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

Explosion data
Sensitivity to Mechanical Impact None
Sensitivity to Static Discharge None

Suitable extinguishing media
Use: Dry chemical, Carbon dioxide (CO2), Water spray (fog), Alcohol resistant foam.
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.

5. FIRE-FIGHTING MEASURES

Note to physicians

Treat symptomatically.

Indication of any immediate medical attention and special treatment needed

Symptoms
No information available.

Most important symptoms and effects, both acute and delayed

Self-protection of the first aider

Use personal protective equipment as required

Ingestion

Do NOT induce vomiting. Drink plenty of water. If symptoms persist, call a physician. Rinse mouth. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician.

Inhalation

Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Move to fresh air in case of accidental inhalation of vapors or decomposition products. If symptoms persist, call a physician.

Skin Contact

Consult a physician if necessary. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician.

persist, call a physician.

precautionary measures against static discharges.

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. Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

Conditions for safe storage, including any incompatibilities

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

Incompatible materials

None known.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines			
Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
2,4-D, 2-ethylhexyl ester 1928-43-4	TWA: 10 mg/m ³ inhalable fraction S ⁺	TWA: 10 mg/m ³	IDLH: 100 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

Local and General Ventilation.

Engineering Controls

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.

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. 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

Property	Values	Remarks • Method
Physical state	Liquid	
Appearance	Clear	
Color	Yellow to Light brown	
pH	Not available	
Melting point/freezing point	<35 °F	
Boiling point / boiling range	No information available	

Flash point	88 °C / 190 °F
Evaporation rate	< 1
Flammability (solid, gas)	No information available
Flammability Limit in Air	No information available
Upper flammability limit:	No information available
Lower flammability limit:	No information available
Vapor pressure	< 10 mm Hg
Vapor density	< 1
Specific Gravity	0.95247
Water solubility	Emulsifiable
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	7.93 pounds/gallon

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

None known.

Hazardous Decomposition Products

May emit toxic fumes under fire conditions. Hydrogen chloride. Carbon monoxide. Organochlorides.

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

Moderate skin irritation.

Ingestion

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

Chemical Name	Oral LD50	> 5000 mg/kg (Rat)	2,4-D, 2-ethylhexyl ester
Trade Secret	Dermal LD50	> 2000 mg/kg (Rabbit)	
	Inhalation LC50	> 5.2 mg/L (Rat) 4 h	
		= 300 mg/kg (Rat)	

1928-43-4	3,6-Dichloro-o-anisic acid (Dicamba)	1918-00-9
	= 1039 mg/kg (Rat)	> 1 g/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

Sensitization: Not a skin sensitizer.
Germ cell mutagenicity: No information available.

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
2,4-D, 2-ethylhexyl ester 1928-43-4		Group 2B		X

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 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.

Aspiration hazard: No information available.

Unknown Toxicity: 47% of the mixture consists of ingredient(s) of unknown toxicity.
Oral LD50: 2154 mg/kg body weight (rat)
Dermal LD50: > 2000 mg/kg body weight (rabbit)
Inhalation LC50: > 5.29 mg/L (rat, 4 hr)

The following values are calculated based on chapter 3.1 of the GHS document
ATEmix (inhalation-gas) 1344 mg/L

12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxic to aquatic life

47% of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Trade Secret 2,4-D, 2-ethylhexyl ester 1928-43-4				
	2,2: 96 h Lepomis macrochirus mg/L LC50 static 2.4: 96 h Oncochynchus mykiss mg/L LC50 flow-through Pimephales promelas mg/L LC50 static 45: 96 h Oncochynchus mykiss mg/L LC50 static 45: 96 h	6 - 8.7: 96 h Oncochynchus mykiss mg/L LC50		4720: 96 h Dendrobaeides heteropoda mg/L LC50

subcapitata mg/L EC50 30: 120 h Pseudokirchnerella subcapitata mg/L EC50 static	flow-through 7.8: 96 h Oncorhynchus mykiss mg/L LC50 static 11.5: 96 h Lepomis macrochirus mg/L LC50 static		
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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
Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging
Do not reuse container, unless specified by the manufacturer.

US EPA Waste Number
U240

14. TRANSPORT INFORMATION

DOT

Proper shipping name

For package sizes less than 66.89 gallons, product is non-regulated.

Description
For package sizes 66.89 gallons or greater: UN3082, Environmentally Hazardous Substances, Liquid, N.O.S., 9, PGIII, RQ (2.4-D).
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

In our current available sizes, this product does not qualify as a Hazardous Material.

15. REGULATORY INFORMATION

U.S. EPA Label Information

EPA Pesticide Registration Number 2217-774

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 the reach of children. Harmful if swallowed, absorbed through skin or inhaled. Causes moderate eye injury. Avoid contact with eyes, skin or clothing, or inhaling spray mist. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

International Inventories

TSCA
DSL/NDSL

Not Listed
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/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

Chemical Name	TSCA	DSL	NDL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
2,4-D, 2-ethylhexyl ester	X			X			X		X	X
3,6-Dichloro-o-anisic acid (Dicamba)				X					X	X

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
3,6-Dichloro-o-anisic acid (Dicamba) - 1918-00-9	1.0

SARA 311/312 Hazard Categories

Acute health hazard Yes
Chronic Health Hazard No
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
2,4-D, 2-ethylhexyl ester	100 lb			
3,6-Dichloro-o-anisic acid (Dicamba)	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)

US State Regulations

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
2,4-D, 2-ethylhexyl ester	100 lb		RQ 100 lb final RQ
3,6-Dichloro-o-anisic acid (Dicamba)	1000 lb		RQ 454 kg final RQ RQ 1000 lb final RQ

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
2,4-D, 2-ethylhexyl ester 1928-43-4	X		
3,6-Dichloro-o-anisic acid (Dicamba) 1918-00-9	X	X	X

International Regulations

Mexico - Grade
 Moderate risk, Grade 2

16. OTHER INFORMATION

NFPA

Health hazards 2

Flammability 1

Instability 0

Physical and Chemical Properties -

Personal protection X

HMIS

Health hazards 2

Flammability 1

Physical hazards 0

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