

# Material Safety Data Sheet

Product Name: POWER ZONE Broadleaf Herbicide for Turf

MSDS No.: 653-6

Version No.: 002

EPA Registration No.: 2217-834

## 1. Basic Information:

**Manufacturer:** PBI/Gordon Corporation  
**Address:** 1217 West 12th Street  
**City, State Zip:** Kansas City, MO 64101-1407  
**Information Contact:** Environmental, Health, & Safety Dept.  
**Information Telephone Number:** (816)421-4070  
**Emergency Contact:** Chemtrec  
**Emergency Telephone Number:** (800)424-9300



2	Health
1	Flammability
0	Reactivity
B	Pers. Protection

Last Update: 3/29/2010

**Chemical State:**  Liquid  Gas  Solid  
**Chemical Type:**  Pure  Mixture

## 2. Ingredients:

Trade Secret (ND = Not Disclosed)

CAS No.	Chemical Name	% Range	EHS		IARC		SARA 313 SUB Z	OSHA PEL	ACGIH TLV	Other Limits
			NTP							
29450451	2-Methyl-4-chlorophenoxyacetic acid, 2-ethylhexyl ester (MCPA 2-EHE)	41.98%	N	N	Y	N	N	NI	NI	NI
1918009	3,6-Dichloro-o-anisic acid (Dicamba)	2.69%	N	N	N	N	Y	NI	NI	NI
128639021	Carfentrazone-ethyl	0.48%	N	N	N	N	N	NI	NI	NI
16484778	R(+)-2(2-Methyl-4-chlorophenoxy) propionic acid (MCPA)	5.39%	N	N	Y	N	N	NI	NI	NI

## 3. Hazardous Identification:

**Hazard Category:**  
 Acute  Chronic  Fire  Pressure  Reactive

**Hazardous Identification Information:**  
 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, MCPA, 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.

## 4. First Aid Measures:

**Route(s) of Entry:**  
 Skin contact, Inhalation, Ingestion.

**Health Hazards (Acute and Chronic):**  
 EYES: Moderately irritating to the eye.

SKIN: Moderately irritating to the skin.

**INHALATION:** Moderately irritating to the mucous membranes. Inhalation of sprays may cause burning sensations in the respiratory tract, resulting in coughing.

**INGESTION:** May cause vomiting, with pain in the chest and abdomen, and diarrhea.

**Signs and Symptoms:**  
 Inhalation may cause burning in the chest, with coughing. Prolonged inhalation sometimes causes dizziness. Ingestion usually leads to vomiting. Pain in the chest and abdomen, and diarrhea may follow. Headache, mental confusion, and bizarre behavior are early

### First Aid Measures (Continued)

manifestations of severe poisoning, which may progress to unconsciousness.

**Medical Conditions Generally Aggravated by Exposure:**  
 Individuals with chronic skin disease or known sensitivity to chlorophenoxy compounds should either avoid using them or take strict precautions to avoid contact. (respirator, gloves, etc.)

**Emergency First Aid Procedure:**  
 If swallowed:  
 • Call a poison control center or doctor immediately for treatment advice.  
 • Do not induce vomiting unless told to by a poison control center or doctor.  
 • Do not give any liquid to the person.  
 • Do not give anything by mouth to an unconscious person.

If in eyes:  
 • Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.  
 • Call a poison control center or doctor for treatment advice.

If on skin:  
 • Take off contaminated clothing.  
 • Rinse skin immediately with plenty of water for 15 - 20 minutes.  
 • Call a poison control center or doctor for treatment advice.

If inhaled:  
 • Move person to fresh air.  
 • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.  
 • Call a poison control center or doctor for treatment advice.

**Other Health Warnings:**  
 Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-877-800-5556 for emergency medical treatment advice.

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## First Aid Measures (Continued)

NOTE TO PHYSICIAN: Contains petroleum distillate - vomiting may cause aspiration pneumonia.

### 5. Fire Fighting Measures:

**Flash Point:** >200°F **F.P. Method:** Pinsky Martens C

**Lower Explosive Limit:** NI

**Upper Explosive Limit:** NI

**Fire Extinguishing Media:**

Foam, CO<sub>2</sub>, dry chemical.

**Special Fire Fighting Procedures:**

Wear positive-pressure breathing apparatus and full protective clothing. Fight fire from maximum distance. Stay up-wind and out of low areas.

**Unusual Fire and Explosion:**

Fire fighting precautions would be the same as those used for any petroleum based oil product. Runoff from fire control area or dilution water may cause pollution. If surface water is contaminated, contact local authorities.

### 6. Accidental Release Measures:

**Steps to be Taken in Case Material is Released or Spilled:**

Do not touch spilled material. See Section 8 for Personal Protective Equipment. Contain and absorb spilled material on Dri-Rite, sand or other non-combustible absorbent. Collect into drums; cover and label for disposal. Flush area with water if possible.

### 7. Handling and Storage:

**Precautions to be Taken:**

Do not contaminate water, food, or feed by storage or disposal. STORAGE: Store in original container in a locked storage area. Keep from freezing.

**Other Precautions:**

NI

### 8. Exposure Controls/Personal Protection:

**Ventilation Requirements:**

Good local ventilation is recommended; mechanical ventilation may be used if exposure limits may be exceeded.

**Personal Protective Equipment:**

Personal Protective Equipment (PPE)  
Some materials that are chemical resistant to this product are made of barrier laminate, butyl rubber, nitrile rubber, or viton. If you want more options, follow the instructions for category E on an EPA chemical resistance category selection chart.

Mixers, loaders, applicators, and other handlers must wear:

- Long-sleeved shirt and long pants,
- Shoes plus socks, and
- Chemical-resistant gloves.

**User Safety Requirements**

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent material that have been drenched or heavily contaminated with the product's concentrate. Do not reuse them.

**User Safety Recommendations**

- Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Users should remove clothing/PPE immediately if pesticide gets inside.

## Exposure Controls/Personal Protection (Continued)

Then wash thoroughly and put on clean clothing.

--Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**Engineering Control Statements**

When handlers use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d)(4-6), the handler PPE requirements may be reduced or modified as specified in the WPS.

### 9. Physical and Chemical Properties:

**Boiling Point:** >200 °F

**Melting Point:** NI

**Evaporation Rate (Butyl Acetate = 1):** <1

**Vapor Pressure (mm Hg.):** NI

**Vapor Density (Air = 1):** >1

**Specific Gravity (H<sub>2</sub>O = 1):** 0.98130

**Solubility in Water:** Emulsifiable

**Appearance and Odor:** Amber liquid; ester odor

**Other Information:**

pH = 2.7 for a 1% aqueous solution

Density = 8.224 pounds/gallon

Freezing point <35°F

Viscosity: 10cps @25°C

### 10. Stability and Reactivity:

**Stability:**

Stable.

**Incompatibility (Materials to Avoid):**

None known

**Decomposition/By-Products:**

May produce gases such as HCl, organo chlorides, nitrogen oxides, and carbon monoxide when burning.

**Hazardous Polymerization:**

Will not occur.

### 11. Toxicological Information:

EYES: Moderately irritating to the eye.

SKIN: Moderately irritating to the skin. Acute demal LD50 is greater than 2,000 mg/kg for male and female rabbits. This product appears to be a contact sensitizer.

INHALATION: Acute inhalation LC50 is greater than 2.06 mg/L in male and female rats.

INGESTION: Acute oral LD50 is greater than 2,000 mg/kg for male and female rats.

### 12. Ecological Information:

This pesticide may adversely affect non-target plants. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Runoff of this product will be reduced by avoiding applications when

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## Ecological Information (Continued)

rainfall is forecasted to occur within 48 hours.

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.

### 13. Disposal Considerations:

## Disposal Considerations (Continued)

**PESTICIDE DISPOSAL:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

[For Plastic Containers – Nonrefillable with capacities equal to or less than 5 gallons:]

**CONTAINER HANDLING:** Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Triple rinse [or pressure rinse] container (or equivalent) promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

[Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.]

[For Plastic Containers – Nonrefillable with capacities greater than 5 gallons:]

**CONTAINER HANDLING:** Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Triple rinse [or pressure rinse] container (or equivalent) promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

[Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.]

[For Refillable Containers:]

**CONTAINER HANDLING:** Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Container cleaning: Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

### 14. Transport Information:

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## Transport Information (Continued)

The following guidelines apply for domestic ground transport. If shipping by air or ocean, please contact our Transportation Dept.

Freight Class: PESTICIDES, NOI - NMFC #155050-6

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

### **15. Regulatory Information:**

OSHA STATUS: This product is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200.

TSCA STATUS: This product is exempt from TSCA Regulation under FIFRA Section 3(2)(B)(ii) when used as a pesticide.

CERCLA REPORTABLE QUANTITY: 37175 pounds of the formulation which contains 1000 pounds of Dicamba

SARA TITLE III:

SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES: None

SECTION 311/312 HAZARD CATEGORIES: Immediate Health

Hazard, Delayed Health Hazard

SECTION 313 TOXIC CHEMICALS: Dicamba CAS# 1918-00-9

RCRA STATUS: When discarded in its purchased form, this product is a listed RCRA hazardous waste and should be managed as a hazardous waste. (40 CFR 261.20-24)

### **16. Other Information:**

REASON FOR ISSUE: New MSDS in the ANSI Z400.1-1998 format

Note: NI means not Indicated.

The information and statements in this Material Safety Data Sheet are believed to accurately reflect the scientific evidence used in making the hazard determination, but is not to be construed as a warranty or representation for which we assume legal responsibility. Additional information may be necessary or desirable depending on particular, exceptional or variable conditions or circumstances of use or storage or because of locally applicable laws or government regulations. Therefore, you should use this information only as a supplement to other information available to you and must make independent determinations of the suitability of the information for your particular circumstances or conditions and of the completeness of the information available from all sources to assure both the proper use of the material described herein and the safety and health of employees.