

# Material Safety Data Sheet

Product Name: POWER ZONE Broadleaf Herbicide for Turf

MSDS No.: 653-6

Version No.: 001

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:** 10/5/2001

**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		OSHA PEL	ACGIH TLV	Other Limits
			NTP		SUB Z						
29450451	2-Methyl-4-chlorophenoxyacetic acid, 2-ethylhexyl ester	41.98%	N	N	Y	N	N	NI	NI	NI	NI
1918009	3,6-Dichloro-o-anisic acid (Dicamba)	2.69%	N	N	N	N	Y	NI	NI	NI	NI
128639021	Carfentrazone-ethyl	0.48%	N	N	N	N	N	NI	NI	NI	NI
16484778	R-(+)-2(2-Methyl-4-chlorophenoxy) propionic acid (MCP)	5.39%	N	N	Y	N	N	NI	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, MCP, 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.

NOTE TO PHYSICIAN: Contains petroleum distillate - vomiting may

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## First Aid Measures (Continued)

cause aspiration pneumonia.

### 5. Fire Fighting Measures:

**Flash Point:** >200°F **F.P. Method:** Pensky Martens CC

**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:**

Engineering Control Statements for non-WPS uses:  
Containers over 1 gallon and less than 5 gallons: Persons engaged in open pouring of this product must also wear coveralls or a chemical resistant apron.

Containers of 5 gallons or more: Do not open-pour product from this container. A mechanical system (such as a probe and pump or spigot) must be used for transferring the contents of this container. If the contents of a non-refillable pesticide container are emptied, the probe must be rinsed before removal.

### 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:**

Clothing Requirement Statement:  
When mixing, loading, or applying this product, wear long-sleeved shirt, long pants, socks, shoes, chemical-resistant gloves and eye protection. It is recommended that safety glasses include front, brow, and temple protection.

**Personal Hygiene Statement:**

After using this product, rinse gloves before removing, remove clothing and launder separately before reuse, and promptly and thoroughly wash hands and exposed skin with soap and water. Remove saturated clothing as soon as possible and shower.

RESPIRATORY PROTECTION: If exposure limits may be exceeded,

## Exposure Controls/Personal Protection (Continued)

wear a respirator with an organic-vapor removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a NIOSH approved respirator with any R, P or HE filter.

### 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 dermal LD<sub>50</sub> is greater than 2,000 mg/kg for male and female rabbits. This product appears to be a contact sensitizer.

INHALATION: Acute inhalation LC<sub>50</sub> is greater than 2.06 mg/L in male and female rats.

INGESTION: Acute oral LD<sub>50</sub> is greater than 2,000 mg/kg for male and female rats.

### 12. Ecological Information:

Carfentrazone is very toxic to algae and moderately toxic to fish. This product is toxic to aquatic invertebrates. Drift or runoff may adversely affect aquatic invertebrates and nontarget plants. Do not apply directly to water, or 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. When cleaning equipment, do not pour the washwater on the ground; spray or drain over a large area away from wells and other water sources.

Most cases of groundwater contamination involving phenoxy herbicides such as 2,4-D and MCPP-p have been associated with mixing, loading and disposal sites. Caution should be exercised when handling 2,4-D and MCPP-p pesticides at such sites to prevent contamination of groundwater supplies. Use of closed systems for mixing or transferring

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## Ecological Information (Continued)

this pesticide will reduce the probability of spills. Placement of the mixing/loading equipment on an impervious pad to contain spills will help prevent groundwater contamination.

### **13. Disposal Considerations:**

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law and may contaminate groundwater. 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.

CONTAINER DISPOSAL: For Metal Containers - Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill or by other procedures approved by state and local authorities. For Plastic Containers - Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities by burning. If burned stay out of smoke.

### **14. Transport Information:**

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

Freight Class: Herbicides, NOI - NMFC #50320

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

## Other Information (Continued)

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.