



## NOTICE OF LANDSCAPE APPLICATION

**Date of Application:** April 30, 2025

May 5, 2025 Scheduled as an alternate day in the event of inclement weather.

**Location:** Treetop Park

**Reason for Application:** Fertilize turf to provide uniform growth with extended nitrogen feeding.

**Product Manufacturer Name:** Yara Turf Royale 21-7-14

-Active ingredients: N/A

-Precautionary statement: Causes serious eye irritation.

**Reason for Application:** The following herbicide treatment is used to control broadleaf in the turf.

**Product Manufacturer Name:** Power Zone Broadleaf Herbicide for Turf

-EPA registration no. 2217-834

-Active ingredients: MCPA, 2-ethylhexyl/ester, Mecoprop-p acid, Dicamba acid, and Carfentrazone-ethyl.

-Precautionary statement: Causes moderate eye irritation. Harmful if absorbed through skin. Harmful if swallowed.

**\*See attached label and SDS sheet**

**\*Dates are subject to change due to weather**

# TURF ROYALE™ 21-7-14

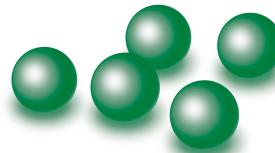
THE VIKING SHIP® BRAND IS A REGISTERED TRADEMARK OF YARA INTERNATIONAL ASA



TURF ROYALE™ 21-7-14



TURF ROYALE™ 21-7-14



21-7-14

50 lbs/  
22.7 kg

TURF ROYALE™ 21-7-14



# TURF ROYALE™ 21-7-14



50 LBS. NET WT. (22.7 kg)



VIKING SHIP® BRAND  
21-7-14  
PROFESSIONAL TURF AND  
LANDSCAPE FERTILIZER  
A Turf Fertilizer for All Seasons

CHAMPIONSHIP QUALITY PRILLED FERTILIZER FOR  
PROFESSIONAL TURF AND LANDSCAPE MANAGERS:  
• 3-1-2 Ratio with Sulfur • Dust Free • Homogenous Prills  
• Chlorine Free • Easy to Apply • Accurate Calibration

**Guaranteed Analysis**

Total Nitrogen (N).....21%  
11.1% Ammoniacal Nitrogen  
9.9% Nitrate Nitrogen  
Available Phosphate ( $P_2O_5$ ).....7%  
Soluble Potash ( $K_2O$ ).....14%  
Sulfur (S).....5.1%  
5.1% Combined Sulfur(S)

Derived from Ammonium Nitrate, Monoammonium Phosphate,  
Diammonium Phosphate and Sulfate of Potash.

Guaranteed by:  
Yara North America, Inc.  
100 North Tampa Street, Suite 3200  
Tampa, FL 33602  
For Yara International ASA, Norway

Use in accordance with recommendations of a qualified individual  
or institution, such as, but not limited to, a certified crop advisor,  
agronomist, university crop extension publication, or apply  
according to recommendations in your approved nutrient  
management plan.

**FOUR SEASON RESPONSE:**

- Nitrate nitrogen for fast greening in cool weather.
- Ammonium nitrogen for supplemental feeding.
- High water solubility phosphate for vigorous new growth.
- Sulfate of potash for maintenance of vigorous turf in high traffic areas and to aid in turf resistance to disease and weather stress.

**Advantages for the Landscape Professional**

1. Viking Ship® Turf Royale 21-7-14 is a homogenous prilled dust  
free fertilizer, with the proper 3-1-2 ratio of  $N_1P_2O_5$  and  $K_2O$  to  
meet the demands of established turf and ornamental feeding.

2. Viking Ship® Turf Royale 21-7-14 is a high analysis fertilizer  
(47.1% plant nutrients). It contains two types of nitrogen:  
Nitrate for quick response and ammonium nitrogen for  
supplemental feeding.

3. Viking Ship® Turf Royale 21-7-14 prills are free flowing for  
even application and accurate calibration.

**Suggestions for Use**

1. Apply when foliage is dry and soil moist.
2. Apply with well maintained equipment for even distribution  
and optimum results.
3. Water immediately after application to wash foliage.

**Turfgrass**

Preplant: Prior to seeding, plugging, or laying of sod, broadcast  
6 pounds of Viking Ship® Turf Royale per 1,000 square feet and  
cultivate into topsoil. After planting, irrigate to keep moist until  
the turf is established.

Coverage: 8,300 sq. ft./50 lb bag.

Established Turf: Broadcast 5 pounds of Viking Ship® Turf  
Royale per 1,000 square feet. Apply irrigation to dissolve  
fertilizer and incorporate into turfgrass rooting zone.

Coverage: 10,000 sq. ft./50 lb bag.

Overseeding: Broadcast 4 pounds of Viking Ship® Turf Royale  
per 1,000 square feet. Water in immediately after seeding.

**Broadleaf Groundcover**

At the beginning of the growing season and again halfway  
through, broadcast 4-5 pounds of Viking Ship® Turf Royale per  
1,000 square feet. Wash any fertilizer prills off the foliage  
immediately to prevent spotting.

**Established Trees & Shrubs**

Shrubs and Evergreens: Sprinkle 1 cup of Viking Ship® Turf  
Royale 21-7-14 evenly around the drip line and work into the top  
1" of soil. Water thoroughly.

**Excellent for use in Landscaped areas**

Turf Royale supplies nitrogen, phosphate and potash in the low  
salt sulfate form. Annuals or perennial ornamentals, trees,  
shrubs, ground covers and bedding plants all can benefit from the  
3-1-2 ratio.

Information regarding the contents and levels of  
metals in this product is available on the internet at  
<http://www.aapfco.org/metals.htm>

Warning: This product contains a chemical (or chemicals)  
known to the State of California to cause cancer and birth  
defects or other reproductive harm.

Yara offers a  
wide spectrum of  
fertilizer products.  
For higher  
quality, yield  
and profits,  
use Yara.



Nitrates



NK/NPKs



Commodities



Potassium Sulfate

Also available from Yara:

- Slow Release
- Micronutrients

**Questions/Information**

Customer Service:  
800-234-9376

Visit our website  
[www.yara.us](http://www.yara.us)



Yara Specialties  
Growing Your Potential



Conforms: GHS (rev 6) (2015)

(This Safety Data Sheet conforms to the requirements of the Hazard Communication Standard (HCS)  
(29 CFR 1910.1200(g)), revised in 2012.) - United States

Date of issue/ Date of revision : 05/20/2020  
Date of previous issue : 08/24/2018  
Version : 2.0



# SAFETY DATA SHEET

**Turf Royale 21-7-14**

## Section 1. Identification

GHS product identifier : Turf Royale 21-7-14  
Product type : Solid (prills)  
Product code : PH981P

### Uses

Area of application : Industrial applications, Professional applications

### Supplier

Supplier's details : Yara North America, Inc.

### Address

Street : 100 North Tampa Street, Suite 3200  
Postal code : 33602  
City : TAMPA  
Country : United States

Telephone number : +1 813 222 5700  
Fax no. : +1 813 875 5735  
e-mail address of person : yna-hesq@yara.com  
responsible for this SDS

Emergency telephone number : US: Chemtrec 24-hours Emergency Response: 1-800-424-9300  
(with hours of operation) Canada: 24 Hour Emergency Service, Canutec 613-996-6666

### National advisory body/Poison Center

Name : The National Poisons Emergency number  
Telephone number : 1 800 222 1222

## Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture. : EYE IRRITATION - Category 2A

### GHS label elements

Hazard pictograms

:



Signal word

:

Warning

Hazard statements

:

H319

Causes serious eye irritation.

**Precautionary statements**

Prevention

:

P280-a

Wear eye protection.

P264-a

Wash hands thoroughly after handling.

Response

:

P305

IF IN EYES:

P351

Rinse cautiously with water for several minutes.

P338

Remove contact lenses, if present and easy to do. Continue rinsing.

P337

If eye irritation persists:

P313-a

Get medical attention.

Hazards not otherwise classified

:

Product forms slippery surface when combined with water.

### Section 3. Composition/information on ingredients

Substance/mixture

:

Mixture

Ingredient name	CAS number	%
Ammonium nitrate	6484-52-2	>= 45- <50
Nitric acid potassium salt	7757-79-1	>= 7- <10

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

### Section 4. First aid measures

**Description of necessary first aid measures**

Date of issue : 05/20/2020

Page:2/19

- |                     |   |   |
|---------------------|---|---|
| <b>Eye contact</b>  | : | Rinse with plenty of running water. Check for and remove any contact lenses. If irritation persists, get medical attention.   |
| <b>Inhalation</b>   | : | If inhaled, remove to fresh air. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.          |
| <b>Skin contact</b> | : | Wash with soap and water. Get medical attention if irritation develops.   |
| <b>Ingestion</b>    | : | Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. |

**Most important symptoms/effects, acute and delayed****Potential acute health effects**

- |                     |   |  |
|---------------------|---|--|
| <b>Eye contact</b>  | : | Causes serious eye irritation.   |
| <b>Inhalation</b>   | : | Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure. |
| <b>Skin contact</b> | : | No known significant effects or critical hazards.  |
| <b>Ingestion</b>    | : | Irritating to mouth, throat and stomach.   |

**Over-exposure signs/symptoms**

- |                     |   |   |
|---------------------|---|---|
| <b>Eye contact</b>  | : | Adverse symptoms may include the following: pain or irritation, watering, redness |
| <b>Inhalation</b>   | : | No specific data.   |
| <b>Skin contact</b> | : | No specific data.   |
| <b>Ingestion</b>    | : | No specific data.   |

**Indication of immediate medical attention and special treatment needed, if necessary**

- |                                   |   |   |
|-----------------------------------|---|---|
| <b>Notes to physician</b>         | : | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. |
| <b>Specific treatments</b>        | : | No specific treatment.  |
| <b>Protection of first-aiders</b> | : | No action shall be taken involving any personal risk or without suitable training.  |

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

**Extinguishing media**

- |                                       |   |   |
|---------------------------------------|---|---|
| <b>Suitable extinguishing media</b>   | : | Use flooding quantities of water for extinction.  |
| <b>Unsuitable extinguishing media</b> | : | Do NOT use chemical extinguisher or foam or attempt to smother the fire with steam or sand. |

<b>Specific hazards arising from the chemical</b>	: The product itself is not combustible but it can support combustion, even in absence of air. On heating it melts and further heating can cause decomposition, releasing toxic fumes containing nitrogen oxides and ammonia.
<b>Hazardous thermal decomposition products</b>	: Decomposition products may include the following materials: nitrogen oxides, sulfur oxides, phosphorus oxides, halogenated compounds, metal oxide/oxides, ammonia, Avoid breathing dusts, vapors or fumes from burning materials., In case of inhalation of decomposition products in a fire, symptoms may be delayed.
<b>Special protective actions for fire-fighters</b>	: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
<b>Special protective equipment for fire-fighters</b>	: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
<b>Remark</b>	: Non-flammable.
<b>Remark</b>	: Non-explosive.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

<b>For non-emergency personnel</b>	: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).
<b>For emergency responders</b>	: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
<b>Personal precautions, protective equipment and emergency procedures</b>	: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).
<b>Environmental precautions</b>	: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution

(sewers, waterways, soil or air).

#### **Methods and materials for containment and cleaning up**

- |                    |   |
|--------------------|---|
| <b>Small spill</b> | : Move containers from spill area. Avoid dust generation. Using a vacuum with HEPA filter will reduce dust dispersal. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.   |
| <b>Large spill</b> | : Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal. |

## **Section 7. Handling and storage**

#### **Precautions for safe handling**

Not for human or animal consumption.

- |   |  |
|---|--|
| <b>Precautions for safe handling</b>          | : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Do not ingest. Avoid contact with eyes, skin and clothing. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. See also Section 8 for additional information on hygiene measures. |
| <b>Protective measures</b>                    | : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.   |
| <b>Advice on general occupational hygiene</b> | : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.  |



- Conditions for safe storage, including any incompatibilities** :
- Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. Keep away from: organic materials, oil and grease.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
Ammonium nitrate	None.
Nitric acid potassium salt	None.

- Appropriate engineering controls** :
- Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
- Environmental exposure controls** :
- Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures

- Hygiene measures** :
- A washing facility or water for eye and skin cleaning purposes should be present. Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Wash contaminated clothing before reusing.
- Eye/face protection** :
- Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.
- Recommended:** Tightly-fitting goggles,

### Skin protection

- Hand protection** :
- Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
- Body protection** :
- Personal protective equipment for the body should be selected based on the task being performed and the risks involved.

<b>Other skin protection</b>	:	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
<b>Respiratory protection</b>	:	Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
<b>Personal protective equipment (Pictograms)</b>	:	 

## Section 9. Physical and chemical properties

### Appearance

<b>Physical state</b>	:	Solid [prills]
<b>Color</b>	:	Gray.,
<b>Odor</b>	:	Odorless.
<b>Odor threshold</b>	:	Not determined.
<b>pH</b>	:	4.5 [Conc.: 100 g/l]
<b>Melting/freezing point</b>	:	Decomposes: 160 °C (320 °F)
<b>Boiling/condensation point</b>	:	Not determined.
<b>Sublimation temperature</b>	:	Not determined.
<b>Flash point</b>	:	Not determined.
<b>Evaporation rate</b>	:	Not determined.
<b>Flammability (solid, gas)</b>	:	Non-flammable.
<b>Lower and upper explosive (flammable) limits</b>	:	<b>Lower:</b> Not determined. <b>Upper:</b> Not determined.
<b>Vapor pressure</b>	:	Not determined.
<b>Bulk density</b>	:	1,000 kg/m <sup>3</sup>
<b>Relative density</b>	:	Not determined.
<b>Solubility</b>	:	Soluble in the following materials: cold water
<b>Partition coefficient: n-octanol/water</b>	:	Not determined.
<b>Auto-ignition temperature</b>	:	Not determined.
<b>Decomposition temperature</b>	:	160 °C (320 °F)
<b>Viscosity</b>	:	<b>Dynamic:</b> Not determined.

**Explosive properties** : **Kinematic:** Not determined.  
**Oxidizing properties** : Non-explosive.  
 : None

## Section 10. Stability and reactivity

**Reactivity** : No specific test data related to reactivity available for this product or its ingredients.

**Chemical stability** : The product is stable.

**Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.

**Conditions to avoid** : Avoid contamination by any source including metals, dust and organic materials.

**Incompatible materials** : alkalis combustible materials, reducing materials, organic materials, Acids

**Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Method	Species	Result	Exposure	References
Nitric acid potassium salt					
	LD50 Oral	Rat	2,000 - 5,000 mg/kg	Not applicable.	CSR
	LD50 Dermal	Rat	> 5,000 mg/kg	Not applicable.	CSR
Ammonium nitrate					
	OECD 401 LD50 Oral	Rat	2,950 mg/kg	Not applicable.	CSR
	OECD 402 LD50 Dermal	Rat	> 5,000 mg/kg	Not applicable.	CSR

**Conclusion/Summary** : No known significant effects or critical hazards.

#### Irritation/Corrosion

Product/ingredient name	Method	Species	Result	Exposure	References
-------------------------	--------	---------	--------	----------	------------

Date of issue : 05/20/2020

Page:8/19

Nitric acid potassium salt					
	OECD 404 Skin	Rabbit	Non-irritating.		IUCLID 5
Ammonium nitrate					
	OECD 405 Eyes	Rabbit	Irritant		CSR

**Conclusion/Summary**

**Skin** : No known significant effects or critical hazards.

**Eyes** : Causes serious eye irritation.

**Respiratory** : No known significant effects or critical hazards.

**Sensitization**

Product/ingredient name	Method	Species	Result	References
Ammonium nitrate				
	OECD 429 Skin	Mouse	Not sensitizing	

**Conclusion/Summary**

**Skin** : No known significant effects or critical hazards.

**Respiratory** : No known significant effects or critical hazards.

**Mutagenicity**

Product/ingredient name	Method	Test detail	Result	References
Ammonium nitrate				
	OECD 473	Mammalian Toxicity - Genotoxicity - In vitro Mammalian Chromosome Aberration Test or Mammalian Bone Marrow Chromosomal Abberation Test or Mammalian Erythrocyte Micronucleus Test In vitro	Negative	CSR
	OECD 471	Bacteria	Negative	IUCLID

In vitro

**Conclusion/Summary** : No known significant effects or critical hazards.

### **Carcinogenicity**

#### **Classification**

Product/ingredient name	OSHA	IARC	NTP
Nitric acid potassium salt	Not applicable.	2A	Not applicable.

**Conclusion/Summary** : No known significant effects or critical hazards.

### **Reproductive toxicity**

Product/ingredient name	Method	Species	Result	Exposure	References
Ammonium nitrate					
	OECD 422 Oral	Rat	Fertility effects- Negative Developmental- Negative NOAEL > 1500 mg/kg bw/day	28 days	CSR

**Conclusion/Summary** : No known significant effects or critical hazards.

### **Specific target organ toxicity (single exposure)**

No known significant effects or critical hazards.

### **Specific target organ toxicity (repeated exposure)**

No known significant effects or critical hazards.

### **Aspiration hazard**

No known significant effects or critical hazards.

**Information on the likely routes of exposure:** : Not available.

### **Potential acute health effects**

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : Irritating to mouth, throat and stomach.

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

- Eye contact** : Adverse symptoms may include the following: pain or irritation, watering, redness
- Inhalation** : No specific data.
- Skin contact** : No specific data.
- Ingestion** : No specific data.

**Delayed and immediate effects and also chronic effects from short and long term exposure****Short term exposure**

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

**Long term exposure**

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

**Potential chronic health effects**

Product/ingredient name	Method	Species	Result	Exposure	References
Ammonium nitrate					
	OECD 422 Chronic NOAEL Oral	Rat	256 mg/kg	28 days	CSR
	OECD 412 Sub-acute NOEC Inhalation	Rat	> 185 mg/m <sup>3</sup>	2 weeks 5 hours per day	CSR

- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Fertility effects** : No known significant effects or critical hazards.
- Developmental effects** : No known significant effects or critical hazards.
- Effects on or via lactation** : No known significant effects or critical hazards.
- Other effects** : No known significant effects or critical hazards.

**Over-exposure signs/symptoms**

- Eye contact** : Adverse symptoms may include the following: pain or irritation, watering, redness
- Inhalation** : No specific data.
- Skin contact** : No specific data.
- Ingestion** : No specific data.

**Numerical measures of toxicity****Acute toxicity estimates**

Route	ATE value
Oral	5,162.1 mg/kg

**Section 12. Ecological information****Toxicity**

Product/ingredient name	Method	Species	Result	Exposure	References
Nitric acid potassium salt					
	OECD 203 Acute LC50 Fresh water	Fish	> 100 mg/l	96 h	CSR
	Acute EC50 Fresh water	Daphnia	490 mg/l	48 h	CSR
	Acute EC50 Fresh water	Algae	> 1,700 mg/l	240 h	CSR
Ammonium nitrate					
	Acute LC50 Fresh water	Fish	447 mg/l	48 h	CSR
	Acute EC50 Fresh water	Daphnia	490 mg/l	48 h	CSR
	Acute EC50 Salt water	Algae	1,700 mg/l	10 d	CSR

**Conclusion/Summary** : No known significant effects or critical hazards.

**Persistence and degradability**

**Conclusion/Summary** : No known significant effects or critical hazards.

**Bioaccumulative potential**

**Conclusion/Summary** : No known significant effects or critical hazards.

**Mobility in soil**

**Soil/water partition coefficient (KOC)** : Not available.

**Mobility** : Not available.

**Other adverse effects** : No known significant effects or critical hazards.

**Section 13. Disposal considerations**

**Product****Methods of disposal**

: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

**Regulation: UN Class**

<b>14.1 UN number</b>	Not regulated.
<b>14.2 UN proper shipping name</b>	Not applicable.
<b>14.3 Transport hazard class(es)</b>	Not applicable.
<b>14.4 Packing group</b>	Not applicable.
<b>14.5 Environmental hazards</b>	No.

**Additional information**

**Environmental hazards** : No.

**Regulation: IMDG**

<b>14.1 UN number</b>	Not regulated.
<b>14.2 UN proper shipping name</b>	Not applicable.
<b>14.3 Transport hazard class(es)</b>	Not applicable.
<b>14.4 Packing group</b>	Not applicable.
<b>14.5 Environmental hazards</b>	No.

**Additional information**

**Marine pollutant** : No.



--

<b>Regulation: IATA</b>	
<b>14.1 UN number</b>	Not regulated.
<b>14.2 UN proper shipping name</b>	Not applicable.
<b>14.3 Transport hazard class(es)</b>	Not applicable.
<b>14.4 Packing group</b>	Not applicable.
<b>14.5 Environmental hazards</b>	No.
<b>Additional information</b>	
<b><u>Marine pollutant</u></b>	: No.

<b>Regulation: DOT Classification</b>	
<b>14.1 UN number</b>	Not regulated.
<b>14.2 UN proper shipping name</b>	Not applicable.
<b>14.3 Transport hazard class(es)</b>	Not applicable.
<b>14.4 Packing group</b>	Not applicable.
<b>14.5 Environmental hazards</b>	No.
<b>Additional information</b>	
<b><u>Marine pollutant</u></b>	: Not available.

<b>Regulation: TDG Class</b>	
<b>14.1 UN number</b>	Not regulated.
<b>14.2 UN proper shipping name</b>	Not applicable.
<b>14.3 Transport hazard class(es)</b>	Not applicable.
<b>14.4 Packing group</b>	Not applicable.
<b>14.5 Environmental hazards</b>	No.
<b>Additional information</b>	
Not applicable.	
<b><u>Environmental hazards</u></b>	: No.

**14.6 Special precautions for user** : Transport within user's premises: Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**IMSBC**

**Bulk cargo shipping name** : AMMONIUM NITRATE BASED FERTILIZER (non-

Date of issue : 05/20/2020

Page:14/19

Class : hazardous)  
 Group : Not applicable.  
 Marpol V : C  
 : Non-HME  
 Transport in bulk according to Annex II of MARPOL and the IBC Code : Not applicable.

## Section 15. Regulatory information

### United States

U.S. Federal regulations : TSCA 8(a) CDR Exempt/Partial exemption: Not determined

Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

### SARA 302/304

#### Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

### SARA 311/312

Classification : EYE IRRITATION - Category 2A

#### Composition/information on ingredients

Name	%	Classification
Nitric acid potassium salt	>= 7 - < 10	Fire hazard - Delayed (chronic) health hazard Fire hazard

Ammonium nitrate	>= 45 - < 50	Fire hazard - Immediate (acute) health hazard EYE IRRITATION - Category 2A OXIDIZING SOLIDS - Category 3
------------------	--------------	--

**SARA 313****Form R - Reporting requirements**

Product name	CAS number	%
Phosphoric acid, ammonium salt (1:2)	7783-28-0	>= 1 - < 2
Phosphoric acid, ammonium salt (1:1)	7722-76-1	>= 3 - < 5
Sulfuric acid ammonium salt (1:2)	7783-20-2	>= 7 - < 10
Nitric acid potassium salt	7757-79-1	>= 7 - < 10
Ammonium nitrate	6484-52-2	>= 45 - < 50

**Supplier notification**

Product name	CAS number	%
Phosphoric acid, ammonium salt (1:2)	7783-28-0	>= 1 - < 2
Phosphoric acid, ammonium salt (1:1)	7722-76-1	>= 3 - < 5
Sulfuric acid ammonium salt (1:2)	7783-20-2	>= 7 - < 10
Nitric acid potassium salt	7757-79-1	>= 7 - < 10
Ammonium nitrate	6484-52-2	>= 45 - < 50

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

**State regulations****Massachusetts**

: None of the components are listed.

**New York**

: None of the components are listed.

**New Jersey**: The following components are listed:  
Ammonium nitrate  
Nitric acid potassium salt  
Calcium fluoride (CaF<sub>2</sub>)**Pennsylvania**: The following components are listed:  
Sulfuric acid ammonium salt (1:2)  
Nitric acid potassium salt  
Ammonium nitrate**California Prop. 65**

**⚠ WARNING:** Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

**Inventory list**

Date of issue : 05/20/2020

Page:16/19

**New Zealand Inventory of Chemicals (NZIoC):** All components are listed or exempted.

**Korea inventory:** All components are listed or exempted.

**Australia inventory (AICS):** All components are listed or exempted.

**Canada inventory:** All components are listed or exempted.

**United States inventory (TSCA 8b):** All components are listed or exempted.

**EC INVENTORY (EINECS/ELINCS):** All components are listed or exempted.

**Canada:** All components are listed or exempted.

## Section 16. Other information

### Hazardous Material Information System (U.S.A.)

Health	/	2
Flammability		0
Physical hazards		0

**Caution:** HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on MSDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

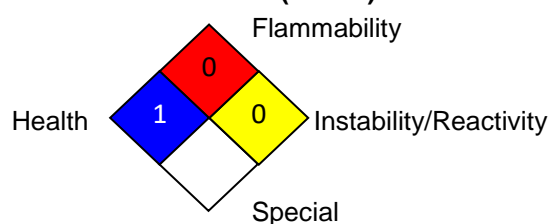
The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

### Chronic toxicity:

- : No data available.

\* : Carcinogen, Target organs, Reproductive effects, Sensitizer to lungs

### National Fire Protection Association (U.S.A.)



Reprinted with permission from NFPA 704-2001, Identification of the Hazards of Materials for Emergency Response Copyright ©1997, National Fire Protection Association, Quincy, MA 02269. This reprinted material is not the complete and official position of the National Fire Protection Association, on the referenced subject which is represented only by the standard in its entirety.

Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire,

health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

#### Procedure used to derive the classification

Classification	Justification
EYE IRRITATION - Category 2A	Calculation method

#### History

Date of printing : 05/24/2021  
 Date of issue/Date of revision : 05/20/2020  
 Date of previous issue : 08/24/2018  
 Revision comments : The following sections contain new and updated information: 2, 3, 8, 11.

Version : 2.0  
 Prepared by : Yara Chemical Compliance (YCC).  
 Key to abbreviations : ATE = Acute Toxicity Estimate  
 BCF = Bioconcentration Factor  
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
 IATA = International Air Transport Association  
 IBC = Intermediate Bulk Container  
 IMDG = International Maritime Dangerous Goods  
 LogPow = logarithm of the octanol/water partition coefficient  
 MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
 SGG = Segregation Group  
 UN = United Nations  
 Key data sources : EU REACH ECHA/IUCLID5 CSR.  
 National Institute for Occupational Safety and Health, U.S. Dept. of Health, Education, and Welfare, Reports and Memoranda Registry of Toxic Effects of Chemical Substances.  
 Sphera Solutions Inc., 4777 Levy Street, St Laurent, Quebec HAR 2P9, Canada.

|| Indicates information that has changed from previously issued version.

#### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the

**accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.**



#### ACTIVE INGREDIENTS:

MCPA, 2-ethylhexyl ester.....	41.98%
Mecoprop-p acid.....	5.39%
Dicamba acid.....	2.69%
Carfentrazone-ethyl.....	0.48%
OTHER INGREDIENTS:.....	49.46%
	TOTAL 100.00%

#### THIS PRODUCT CONTAINS:

2.21 lbs. 2-methyl-4-chlorophenoxyacetic acid equivalent per gallon or 26.92%.  
 0.44 lb. (+)-R-2-(2-methyl-4-chlorophenoxy) propionic acid equivalent per gallon or 5.39%.  
 0.22 lb. 3,6-dichloro-o-anisic acid equivalent per gallon or 2.69%.  
 0.04 lb. Ethyl  $\alpha$ ,2-dichloro-5-[4(difluoromethyl)-4,5-dihydro-3-methyl-5-oxo-1H-1,2,4-triazol-1-yl]-4-fluorobenzenepropanoate per gallon or 0.48%.  
 Contains petroleum distillates.

## KEEP OUT OF REACH OF CHILDREN CAUTION

Si Usted no entiende la etiqueta, busque a alguien para que se la explique a Usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)



**READ THE ENTIRE LABEL FIRST.  
OBSERVE ALL PRECAUTIONS AND  
FOLLOW DIRECTIONS CAREFULLY.**

### PRECAUTIONARY STATEMENTS

#### Hazards to Humans and Domestic Animals

**CAUTION:** Causes moderate eye irritation. Harmful if absorbed through the skin. Avoid contact with skin, eyes, or clothing. Harmful if swallowed. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

#### 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.

#### 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.

#### 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. 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.

#### First Aid

<b>If swallowed:</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Do not induce vomiting unless told to by a poison control center or doctor.</li> <li>• Do not give any liquid to the person.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>If in eyes:</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If on skin or on clothing:</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If inhaled:</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>

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.

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

#### Environmental Hazards

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 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.

### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

#### Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170.

This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 48 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

- coveralls worn over short-sleeved shirt and short pants,
- chemical-resistant footwear plus socks,
- chemical-resistant gloves made of any water-proof material,
- chemical-resistant headgear for overhead exposure and
- protective eyewear.

#### Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

**Reentry Statement:** Do not enter or allow others to enter the treated area until sprays have dried.

## PRODUCT DESCRIPTION:

PowerZone® Broadleaf Herbicide For Turf contains four active ingredients including carfentrazone-ethyl that broaden the spectrum of weed control. Carfentrazone-ethyl is in the aryl triazolinone family and inhibits protoporphyrinogen oxidase (Protopx), a pivotal enzyme in chlorophyll production.

PowerZone offers these advantages:

- Excellent postemergent activity with proven performance for broadleaf weed control in turfgrass.
- Superior cool weather performance.
- High selectivity (turfgrass safety) in established cool season turfgrass and warm season turfgrass.
- Carfentrazone-ethyl combinations provide rapid and effective weed control for common and troublesome weed species in turfgrass, e.g. spurge, pennywort (dollarweed), dandelion, and white clover.
- Fast acting with evidence of injury within hours. The speed of action (rate of phytotoxicity) and the early injury symptoms are unique features of carfentrazone-ethyl combinations. Generally, the injury symptoms can be noticed within hours of the application and plant death can occur within 7 to 14 days.

## SPRAY PREPARATION AND TANK MIXTURES:

PowerZone is an emulsifiable concentrate intended for dilution with water. In certain applications, liquid fertilizer may replace part of the water as a diluent.

### Water as diluent:

Add one-half the required amount of water to the spray tank, then add PowerZone slowly with agitation, and complete filling the tank with water. To prevent separation of the emulsion, mix thoroughly and continue agitation while spraying.

This product forms an emulsion and can separate upon extended or prolonged standing. Re-agitate to assure uniformity of the spray mixture. Storage of the spray mixture beyond 72 hours is not recommended.

Do not use tank additives that alter the pH of the spray solution below pH 5 or above pH 8. Buffer the spray solution to alter the pH range as appropriate.

### Liquid fertilizers as diluents:

Use suitable sources and rates of fertilizer based upon local recommendations. Refer to the mixing directions on the labels of the liquid fertilizers (eg. UAN or urea solutions). Always perform a jar compatibility test before large scale mixing.

## GROUND EQUIPMENT:

Power sprayers fitted with a boom or spray wand/gun may be used for broadcast applications and spot treatments. For best spray distribution and coverage, select a spray volume and delivery system that will ensure accurate and uniform coverage. Boom sprayers equipped with appropriate flat fan nozzles, tips, and screens are suitable for broadcast applications. Do not use flood nozzles, Raindrop®, or nozzle tips larger than 8008. Spray droplets larger than 400 microns may reduce coverage and subsequent loss in weed control.

Spray volumes of 3 to 175 gallons per acre with spray pressures adjusted to 20 to 40 psi are appropriate. Use higher spray volumes for dense weed populations.

Hand operated sprayers including backpack sprayers, compression sprayers, and knapsack sprayers are appropriate for small turfgrass areas when power equipment is unavailable, uneconomical, or impractical.

This product may cause injury to susceptible/nontarget plants at the use site by contacting the foliage, stems, or roots. To prevent injury to susceptible crops and other desirable broadleaf plants including but not limited to cotton, legumes, tobacco, tomatoes, garden/vegetable crops, and ornamentals (flowers, trees, and shrubs) avoid contact with the spray solution, spray droplets, and spray mist (fine droplets). Do not apply when conditions are conducive to spray drift from the use site to untreated areas.

After using this product, clean sprayer with soap or detergent and water, or an approved spray tank cleaner and rinse thoroughly before applying other pesticides.

Do not apply by air.

## WHERE TO USE:

PowerZone provides selective broadleaf control in warm season and cool season turfgrass in five (5) use sites.

- **Institutional sites** are defined as turf areas around properties or facilities providing a service to public or private organizations including, but not limited to hospitals, nursing homes, schools, museums, libraries, sport facilities, golf courses (fairways, aprons, and roughs), and office buildings.
- **Ornamental sites** include turfgrass established around residences, parks, streets, retail outlets, cemeteries, industrial and institutional buildings, recreation areas, fairgrounds, and areas adjacent to athletic fields.
- **Residential/domestic sites** are defined as areas associated with the household or home life including, but not limited to apartment complexes, condominiums, and patient care areas of nursing homes, mental institutions, hospitals, or convalescent homes.
- **Agricultural site:** Commercial sod production
- **Noncropland Sites:** Highway rights-of-way (principal, interstate, county, private, and unpaved roads): Roadsides, roadside ditches, road shoulders, road embankments, dividers, and medians. Municipal, state, and federal lands: Airports and military installations.

## Prohibitions of Sites:

- Do not apply to any body of water such as lakes, streams, rivers, ponds, reservoirs, or estuaries (salt water bays). Do not apply to any shorelines (noncropland sites adjacent to the edges of a body of water) for lakes, streams, rivers, ponds, reservoirs, or estuaries (salt water bays).
- Do not apply to wetlands (swamps, bogs, potholes, or marshes).
- Do not apply to agricultural irrigation water or on agricultural irrigation ditchbanks and canals.
- Do not apply to agricultural drainage water or on agricultural ditchbanks.
- Do not apply this product to bentgrass greens, carpetgrass, dichondra, legumes, and lawns where desirable clovers are present.
- Do not apply this product to St. Augustinegrass during spring green-up which is the transition period between dormancy and active growth.
- Cultivars of St. Augustinegrass vary in tolerance to this product. Do not apply to 'Floratum' St. Augustinegrass.
- Do not use this product on or near desirable plants, including contact of spray on exposed root systems or adventitious shoots within the drip line of desirable trees and shrubs, since injury may result.
- Do not apply by air.

## Turfgrass tolerance:

The turfgrass tolerance to PowerZone may vary and temporary turfgrass yellowing may occur on certain varieties of hybrid bermudagrass. Environmental conditions and certain spray tank additives (eg. adjuvants, wetting agents, surfactants), liquid fertilizers, and tank mixtures containing other emulsifiable concentrates may reduce the selectivity on the turfgrass.

These cool season and warm season turfgrass species may be treated:

### Cool Season Turf

Kentucky bluegrass

Annual bluegrass

Annual ryegrass

Perennial ryegrass

Tall fescue

Red or fine leaf fescues

Mixtures of cool season species in noncropland areas established for roadside vegetation management or for low maintenance. (Kentucky bluegrass, tall fescue, smooth brome grass, and orchardgrass)

### Warm Season Turf

Common bermudagrass

Hybrid bermudagrass

Zoysiagrass

## APPLICATION SCHEDULES:

Early postemergent applications of PowerZone are recommended for annual, biennial, and perennial weeds. Apply PowerZone to broadleaf weeds that are young and actively growing for the best results. PowerZone combines a contact herbicide with systemic herbicides and provides little or no residual activity at specified use rates.

PowerZone may be applied as a single broadcast application or as a split/sequential broadcast applications in the spring, summer, or fall. Spring and fall treatments under adequate soil moisture conditions are preferred to the summer treatments. Generally, summer broadcast applications to older, drought stressed weeds are less effective.

Apply sequential broadcast applications or followup applications as spot treatments at a minimum interval of 30 days.

Spot treatments during the summer may be appropriate for sparse infestations, or as a follow-up treatment, or any time broadleaf weeds are susceptible. Apply on a spray-to-wet basis for the best results.

Extremes in environmental conditions e.g. temperature and moisture, soil conditions, and cultural practices may affect the activity of PowerZone. Under warm moist conditions, herbicide symptoms may be accelerated. While under very dry conditions, the expression of herbicide symptoms is delayed, and weeds hardened off by drought are less susceptible to PowerZone.

### For newly seeded areas:

The application of PowerZone to grass seedlings is recommended after the second mowing.

### For newly sodded, sprigged, or plugged areas:

The application of PowerZone to newly sodded, sprigged, or plugged grasses should be delayed until 3 to 4 weeks after the sodding, sprigging, or plugging operations.

### For dormant turf:

Applications to dormant bermudagrass, and dormant zoysiagrass are suggested.

### Prohibitions for application schedules:

Do not broadcast apply when air temperatures exceed 90°F; some injury may be expected with spot treatments when air temperatures exceed 90°F.

## HOW MUCH TO USE: USE RATES AND SPRAY VOLUMES FOR TURFGRASS:

Generally, the lower application rates within the specified range will provide satisfactory control of sensitive weed species. The higher application rates within the specified range will be required for dense infestations of perennial weeds, for adverse/extreme environmental conditions, or for weeds beyond the appropriate growth stages.

Use rates and spray volumes of PowerZone as broadcast treatments for use on turfgrass are presented in Table 1.



TABLE 1. USE RATES FOR SOD FARMS, ORNAMENTAL LAWNS AND TURFGRASS.

Species	Amount of Product for SENSITIVE WEEDS	Amount of Product for HARD-TO-CONTROL WEEDS	Spray Volume	
			Gallons Per Acre	Gallons Per 1,000 sq. ft.
<b>Cool-Season Turf:</b> Kentucky bluegrass, Annual bluegrass, Annual ryegrass, Perennial ryegrass, Tall Fescue, Red or Fine Fescue.  Mixtures of cool-season species in non-cropland areas established for roadside vegetation management or for low maintenance. (Kentucky bluegrass, tall fescue, smooth bromegrass & orchardgrass).	3.5 to 4 Pints/Acre (1.3 to 1.5 fl. oz. per 1,000 sq. ft.)	4 to 5 Pints/Acre (1.5 to 1.8 fl. oz. per 1,000 sq. ft.)	3 to 175	0.1 to 4.0
<b>Warm Season Turf:</b> Common and Hybrid Bermudagrass, Zoysiagrass.	2 to 3 Pints/Acre (0.75 to 1.1 fl. oz. per 1,000 sq. ft.)	3 to 4 Pints/Acre (1.1 to 1.5 fl. oz. per 1,000 sq. ft.)	3 to 175	0.1 to 4.0

#### Limitations on broadcast treatments for turfgrass on all use sites:

The maximum application rate is 5.0 pints of product per acre per application (1.38 lb. MCPA ae, 0.28 lb. MCPP-p ae, and 0.14 lb. dicamba ae per acre per application). The maximum number of broadcast applications is limited to 2 per year with a minimum of 30 days between applications. The maximum seasonal rate is 10 pints of product per acre per year (2.76 lb. MCPA ae, 0.55 lb. MCPP-p ae, and 0.28 lb. dicamba ae per acre per year), excluding spot treatments.

#### SPOT TREATMENTS WITH HAND OPERATED SPRAYERS (INCLUDING BACKPACK SPRAYERS, COMPRESSION SPRAYERS, AND KNAPSACK SPRAYERS):

- For cool season turfgrass, mix 1.5 to 2.2 fl. oz. of PowerZone per one (1.0) gallon of water for treatment of approximately 1,000 sq. ft. of turfgrass. Apply any time the emerged broadleaf weeds are susceptible. Spray the target weeds thoroughly and wet the entire leaf surface of the undesirable plants.
- For warm season turfgrass, mix 0.75 to 1.5 fl. oz. of PowerZone per one (1.0) gallon of water for treatment of approximately 1,000 sq. ft. of turfgrass. Apply any time the emerged broadleaf weeds are susceptible. Spray the target weeds thoroughly and wet the entire leaf surface of the undesirable plants.

#### Limitations on spot treatments for turfgrass on all use sites:

Spot treatment is defined as a treatment area no greater than 1,000 sq. ft. per acre. The maximum application rate is 2.2 fl. oz. per 1,000 sq. ft. per application (0.33 lb. MCPP-p acid equivalent per acre). The maximum number of spot treatments is limited to 2 per year with a minimum of 30 days between applications.

#### Tank Mixtures:

PowerZone may be tank mixed with other herbicides EPA-registered for use on turfgrass to broaden the weed control spectrum compared to the products alone. These tank mixtures must be used according to the most restrictive label limitations and precautions. No label dosage rate should be exceeded. Follow the labeling of each companion product for precautionary statements, directions for use, dosage rates, and application schedules. Tank mixture recommendations are for use only in states where the companion products and application site are registered.

#### CULTURAL TIPS FOR IMPROVED CONTROL:

##### Irrigation:

- Do not apply this product through any type of irrigation system.
- Do not apply this product immediately before rainfall or irrigation. Do not irrigate or water the turfgrass within 24 hours after application

##### Mowing:

- Delay mowing 1 to 2 days before and after the application of this product.

##### Reseeding interval:

- Treated areas may be reseeded 2 weeks after application.

#### SPRAY DRIFT MANAGEMENT

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

Apply only as a medium or coarser spray (ASAE standard 572) or a volume mean diameter of 300 microns or greater for spinning atomizer nozzles.

#### Wind Speed

Apply only when the wind speed is 2 to 10 mph at the application site. Do not apply at wind speeds greater than 10 mph.

#### Additional requirements for ground boom application:

Do not apply with a nozzle height greater than 4 feet above the crop canopy.

#### BROADLEAF WEEDS CONTROLLED:

PowerZone will control or suppress the following broadleaf weeds and will control or suppress other broadleaf weeds that are susceptible to MCPA.

#### BROADLEAF WEEDS

Annual fleabane	Field oxeye-daisy (*creeping oxeye)	Prostrate knotweed (*knotweed)
Aster, white heath & white prairie	Field pennycress	Puncturevine
Bedstraw	Filaree, whitestem & redstem	Purple cudweed
Beggarticks	Florida pusley	Purslane
Beggarweed, creeping	Ground ivy	Ragweed
Bindweed	Groundsel	Redweed
Birdfoot trefoil	Hairy bittercress	Red sorrel (*sheep sorrel)
Black medic	Hawkweed	Roundleaf greenbriar
Broadleaf plantain	Healall	Shepherd's purse
Buckhorn plantain	Henbit	Spotted spurge
Bull thistle	Horsenettle	Spurge, prostrate
Burclover	Horseweed	Star-of-Bethlehem
Burdock, common	Innocence (Blue-eyed Mary)	Sunflower
Buttercup, creeping	Jimsonweed	Thistle
Carpetweed	Kochia	Velvetleaf (*buttonweed)
Chickweed, common	Lambsquarters	Venice mallow
Chicory	Lawn burweed	Veronica (*corn speedwell)
Cinquefoil	Lespedeza, common	Virginia buttonweed
Clover	Mallow, common	Virginia creeper
Cocklebur	Matchweed	Western salsify
Common mullein	Mouseear chickweed	White clover (*Dutch clover, honeysuckle clover, white trefoil, & purplewort)
Compassplant	Mustard	Wild carrot
Curly dock	Nettle	Wild garlic
Dandelion	Old world diamond flower	Wild geranium
Dayflower	Oxalis (*yellow woodsorrel & creeping woodsorrel)	Wild lettuce
Deadnettle	Parsley-piert	Wild mustard
Dock	Pennsylvania smartweed	Wild onion
Dogfennel	Pennywort (*dollarweed)	Wild strawberry
Dovefoot geranium	Pepperweed	Wild violet
English daisy	Pigweed	Yarrow
False dandelion	Pineappleweed	Yellow rocket
(*spotted catsear & common catsear)	Plantain	
Field bindweed	Poison ivy	
(*morningglory & creeping jenny)	Poison oak	
Field madder		

\*Synonyms

#### STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

**PESTICIDE STORAGE:** Store in original container in a locked storage area inaccessible to children or pets. Keep from freezing.

**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.

**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.

(cont. on next page)

### STORAGE AND DISPOSAL (cont.)

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.

OR

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.

### LIMITED WARRANTY AND DISCLAIMER

**IMPORTANT:** Read this LIMITED WARRANTY AND DISCLAIMER before buying or using this product. By opening and using this product, buyer and all users agree to accept the terms of this LIMITED WARRANTY AND DISCLAIMER in their entirety and without exception. If the terms are not acceptable, return this product unopened immediately to the point of purchase, and the purchase price will be refunded in full.

It is impossible to eliminate all risks inherently associated with use of this product. Damage to the treated article, ineffectiveness, or other unintended consequences can result from use of the product under abnormal conditions such as weather, presence of other materials, or the manner of use or application, etc. Such factors and conditions are beyond the control of the manufacturer, and **BY PURCHASING AND USING THIS PRODUCT THE BUYER AND ALL USERS OF THIS PRODUCT AGREE TO ACCEPT ALL SUCH RISKS.** Buyer and all users further agree to assume all risks of loss or damage from the use of the product in any manner that is not explicitly set forth in or that is inconsistent with label instructions, warnings and cautions.

The manufacturer warrants only that this product conforms to the chemical description given on the label, and that the product is reasonably suited for the labeled use when applied according to the Directions for Use, subject to the inherent risks described below. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE MANUFACTURER NEITHER MAKES NOR INTENDS ANY OTHER EXPRESS OR IMPLIED WARRANTIES, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY EXPRESSLY DISCLAIMED.**

**TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF BUYER AND ALL USERS OF THIS PRODUCT, AND THE EXCLUSIVE LIABILITY OF THE MANUFACTURER, FOR ANY AND ALL LOSSES, DAMAGES, OR INJURIES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER OR NOT BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY IN TORT OR OTHERWISE, SHALL BE LIMITED, AT THE MANUFACTURER'S OPTION, TO REPLACEMENT OF OR THE REPAYMENT OF THE PURCHASE PRICE FOR THE QUANTITY OF PRODUCT WITH RESPECT TO WHICH DAMAGES ARE CLAIMED. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, IN NO CASE SHALL THE MANUFACTURER BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL, OR SPECIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.** The Manufacturer must be promptly notified in writing of any claims, whether based in contract, tort, negligence, strict liability, or otherwise, to be eligible to receive either remedy stated above.

The terms of this LIMITED WARRANTY AND DISCLAIMER cannot be varied by any written or verbal statements or agreements at the point of sale or elsewhere. No employee or agent of the manufacturer or seller is authorized to vary or exceed the terms of this Limited Warranty and Disclaimer in any manner.

POWERZONE® and TRIMEC® are registered trademarks of PBI-Gordon Corporation.

® Checkered Flag/Label Design is a registered trademark of PBI-Gordon Corporation.

653/12-2018 AP110409  
EPA REG. NO. 2217-834

 **pbi/gordon**  
**corporation**  
Employee-Owned  
**MANUFACTURED BY**  
**PBI/GORDON CORPORATION**  
**P.O. BOX 860350**  
**SHAWNEE, KANSAS 66286**  
**PBIGordonTurf.com**

**ATTENTION:** This specimen label is provided for informational use only. This product may not yet be available for sale in your state or area. The information found in this label may differ from the information found on the product label you are using. Always follow the instructions for use and precautions on the label of the product you are using.

Issue Date 07-Nov-2014

Revision Date 11-Jan-2019

Version 4

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

### Product identifier

**Product Name** PowerZone® Broadleaf Herbicide for Turf

### Other means of identification

**Product Code** PBI FP 6531076

**EPA Pesticide Registration Number** 2217-834

**Product Size** 4/1 U. S. Gal.

### 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**  
PBI Gordon Corporation  
P.O. Box 860350  
Shawnee, KS 66286

**Manufacturer**  
PBI Gordon Corporation  
P.O. Box 860350  
Shawnee, KS 66286

**Company Name**  
PBI Gordon Corporation  
P.O. Box 860350  
Shawnee, KS 66286

### 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 Oral Toxicity	Category 4
Acute dermal toxicity	Category 4
Acute Inhalation Toxicity - Gases	Category 4
Acute Inhalation Toxicity - Dusts and Mists	Category 4
Skin Corrosion/Irritation Category	Category 2
Serious eye damage/eye irritation	Category 2B
Skin Sensitization	Category 1
Aspiration Toxicity	Category 1
Acute Aquatic Toxicity	Category 1
Chronic Aquatic Toxicity	Category 1
Flammable liquids	Category 4

### Label elements

### Emergency Overview

#### **Danger**

#### **Hazard statements**

Harmful if swallowed. Harmful in contact with skin. Harmful if inhaled. Causes skin irritation. Causes eye irritation. May cause an allergic skin reaction. May be fatal if swallowed and enters airways. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

Combustible liquid.



Appearance Liquid

Physical state Liquid

Odor Esters

#### Precautionary Statements - Prevention

- Wash face, hands and any exposed skin thoroughly after handling
- Do not eat, drink or smoke when using this product
- 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
- Avoid release to the environment
- Keep away from heat/sparks/open flames/hot surfaces. — No smoking

#### 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 INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
- Call a POISON CENTER or doctor/physician if you feel unwell
- Rinse mouth
- IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
- Do NOT induce vomiting
- In case of fire: Use CO<sub>2</sub>, dry chemical, or foam for extinction
- Collect spillage

#### 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

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS-No	Weight-%
MCPA EH Ester	29450-45-1	41.98
Trade Secret	Proprietary	10-20*
Trade Secret	Proprietary	0-10*
R(+)-2(2 Methyl-4-chlorophenoxy)propionic acid (MCP)	16484-77-8	5.39
3,6-Dichloro-o-anisic acid (Dicamba)	1918-00-9	2.69
Carfentrazone-ethyl	128639-02-1	0.48

\* 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 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 persist, call a physician.
Skin Contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician.
Inhalation	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.
Ingestion	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician immediately.
Self-protection of the first aider	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	Contains petroleum distillate - vomiting may cause aspiration pneumonia.
--------------------	--

#### 5. FIRE-FIGHTING MEASURES

##### Suitable extinguishing media

Foam. Carbon dioxide (CO2). Dry chemical.

##### Specific hazards arising from the chemical

No information available.

##### Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

##### 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.

#### 6. ACCIDENTAL RELEASE MEASURES

##### Personal precautions, protective equipment and emergency procedures

Personal precautions	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 further leakage or spillage if safe to do so. Prevent product from entering drains. 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	Dam up. Soak up with inert absorbent material. Cover liquid spill with sand, earth or other non-combustible absorbent material. Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly. After cleaning, flush away traces with water.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

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

### 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 in properly labeled containers. Keep from freezing.
Incompatible materials	None known.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

Exposure Guidelines	Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).
Other Information	

### Appropriate engineering controls

Engineering Controls	Ensure adequate ventilation, especially in confined areas.
----------------------	--

### 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. 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	Odor	Esters
Appearance	Liquid	Odor threshold	No information available
Color	Amber		
<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>	
pH	Not Applicable		
Melting point/freezing point	<35 °F		
Boiling point / boiling range	> 93 °C / 200 °F		
Flash point	> 93 °C / > 200 °F	Pensky-Martens Closed Cup (PMCC)	

Evaporation rate	< 1
Flammability (solid, gas)	No information available
Flammability Limit in Air	
Upper flammability limit:	No information available
Lower flammability limit:	No information available
Vapor pressure	No information available
Vapor density	>1
Specific Gravity	0.9813
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	8.18 pounds/gallon
---------	--------------------

### 10. STABILITY AND REACTIVITY

#### Reactivity

No data available

#### Chemical stability

Stable.

#### 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.

#### 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

Inhalation	Irritant, moderate respiratory.
Eye contact	Moderately irritating to the eyes.
Skin Contact	Moderate skin irritation.
Ingestion	Ingestion of large amounts can cause abdominal discomfort, nausea, and vomiting.

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
MCPA EH Ester 29450-45-1	= 1300 mg/kg ( Rat )	-	-
Trade Secret	> 5000 mg/kg ( Rat )	> 2000 mg/kg ( Rabbit )	> 5.2 mg/L ( Rat ) 4 h
Trade Secret	= 1870 µL/kg ( Rat )	= 1110 µL/kg ( Rabbit )	-

R(+)-2(2-Methyl-4-chlorophenoxy)propionic acid (MCP) 16484-77-8	= 1050 mg/kg ( Rat )	> 4 g/kg ( Rat )	-
3,6-Dichloro-o-anisic acid (Dicamba) 1918-00-9	= 1039 mg/kg ( Rat )	= 1716 mg/kg ( Rabbit ) > 1 g/kg ( Rat ) > 2 g/kg ( Rabbit )	-
Carfentrazone-ethyl 128639-02-1	= 5143 mg/kg ( Rat )	> 4000 mg/kg ( Rat )	= 5.09 mg/L ( Rat ) 4 h

**Information on toxicological effects**

**Symptoms** No information available.

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

**Sensitization** May cause sensitization by skin contact.  
**Germ cell mutagenicity** No information available.  
**Carcinogenicity** 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. The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
MCPA EH Ester 29450-45-1		Group 2B		
R(+)-2(2-Methyl-4-chlorophenoxy)propionic acid (MCP) 16484-77-8		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** Avoid repeated exposure. Repeated contact may cause allergic reactions in very susceptible persons.  
**Aspiration hazard** No information available.

**Numerical measures of toxicity - Product Information**

**Unknown Toxicity** 1 % of the mixture consists of ingredient(s) of unknown toxicity

**LD50 Oral VALUE (mg/kg)** > 2000 mg/kg Rat-male Rat-female

**LD50 Dermal VALUE** > 2000 mg/kg Rat-female Rat-male

**LC50 Inhalation (DUST) VALUE** > 2.06 mg/L Rat-male Rat-female

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

**ATEmix (inhalation-gas)** 2732 mg/L

**12. ECOLOGICAL INFORMATION****Ecotoxicity**

Very toxic to aquatic life with long lasting effects



0% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
MCPA EH Ester 29450-45-1	0.46: 72 h Pseudokirchneriella subcapitata mg/L EC50 0.43: 96 h Pseudokirchneriella subcapitata mg/L EC50	3.2 - 4.6: 96 h Lepomis macrochirus mg/L LC50 flow-through 3.2: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 0.55: 96 h Lepomis macrochirus mg/L LC50 static		0.29: 48 h Daphnia magna mg/L EC50
Trade Secret		2.2: 96 h Lepomis macrochirus mg/L LC50 static 2.4: 96 h Oncorhynchus mykiss mg/L LC50 static 45: 96 h Pimephales promelas mg/L LC50 flow-through		4720: 96 h Den-dronereides heteropoda mg/L LC50
Trade Secret		1.8: 96 h Oncorhynchus mykiss mg/L LC50		

**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.

### 14. TRANSPORT INFORMATION

**DOT**

Not regulated

**TDG**

Not regulated

**MEX**

Not regulated

**ICAO (air)**

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

Description

UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (MCPA EH Ester, Carfentrazone-ethyl), 9, III

**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

<b>Description</b>	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (MCPA EH Ester, Carfentrazone-ethyl), 9, III
<b>IMDG</b>	Limited quantity applies with an inner packaging less than 5 L or gross package weight less than 30 kg.
<b>UN number</b>	UN3082
<b>UN proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
<b>Transport hazard class(es)</b>	9
<b>Packing group</b>	III
<b>EmS-No.</b>	F-A, S-F
<b>Special Provisions</b>	274, 335, 969
<b>Description</b>	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (MCPA EH Ester, Carfentrazone-ethyl), 9, III, Marine Pollutant

## 15. REGULATORY INFORMATION

### U.S. EPA Label Information

EPA Pesticide Registration Number 2217-834

#### 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

#### PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION: Causes moderate eye irritation. Harmful if absorbed through the skin. Avoid contact with skin, eyes, or clothing. Harmful if swallowed. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Environmental Hazards

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 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.

### International Inventories

TSCA	Not Listed
DSL/NDL	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

Chemical name	TSCA	DSL	NDL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
MCPA EH Ester				X			X			X

Trade Secret	X	X		X			X	X	X	X
Trade Secret	X	X					X	X	X	X
R(+)/2(2 Methyl-4-chlorophenoxy)pro pionic acid (MCP)				X						
3,6-Dichloro-o-anisic acid (Dicamba)				X		X		X	X	X
Carfentrazone-ethyl							X			

## 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 %
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	No
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
3,6-Dichloro-o-anisic acid (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	CERCLA/SARA RQ	Reportable Quantity (RQ)
3,6-Dichloro-o-anisic acid (Dicamba) 1918-00-9	1000 lb		RQ 1000 lb final RQ RQ 454 kg final RQ

## US State Regulations

### U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
3,6-Dichloro-o-anisic acid (Dicamba) 1918-00-9	X	X	X

## International Regulations

### Mexico - Grade

Moderate risk, Grade 2

## 16. OTHER INFORMATION

---

<u><b>NFPA</b></u>	<b>Health hazards 2</b>	<b>Flammability 1</b>	<b>Instability 0</b>	<b>Physical and Chemical Properties -</b>
<u><b>HMIS</b></u>	<b>Health hazards 2</b>	<b>Flammability 1</b>	<b>Physical hazards 0</b>	<b>Personal protection X</b>

**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**