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## Section 1 - Product and Company Identification

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### Product Identifiers:

**Product Name:** Spectracide Weed Stop For Lawns  
**EPA Registration Number:** 9688-109-8845  
**Product Use:** Herbicide Ready-to-Use - Selective

### Details of the Supplier of the Safety Data Sheet:

**Manufacturer/Supplier:** Chemsico  
Division of United Industries Corp.  
P.O. Box 142642  
St. Louis, MO 63114-0642  
**For product information:** 1-800-917-5438  
**For medical emergencies:** 1-800-633-2873

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## Section 2 - Hazards Identification

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Conforms to Hazard Communication Standard 29 CFR 1910.1200.

### GHS Classification of Substance or Mixture:

Physical Hazards GHS Classification Not classified as a physical hazard  
Health Hazards GHS Classification Primary Eye Irritant – Category 2B

### GHS Label Elements:

Hazard pictogram(s): None  
Signal word: WARNING  
Hazard statements: • Causes eye irritation

### Precautionary Statements:

• Wash hands thoroughly with soap and water after handling. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Call a poison control center or doctor for treatment advice.

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## Section 3 - Composition / Information on Ingredients

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Chemical Name	CAS#	Weight Percent
2,4-D, dimethylamine salt	2008-39-1	0.593%
Mecoprop-p, dimethylamine salt	66423-09-4	0.144%
Dichlorprop-p, dimethylamine salt	2300-66-5	0.066%

Note: Ingredients not identified are proprietary or non-hazardous. Values are not product specifications.

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## Section 4 - First Aid Measures

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**Eye contact:** 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.  
**Skin contact:** No special requirements

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<b>Inhalation:</b>	No special requirements
<b>Ingestion:</b>	No special requirements
<b>Notes to physician:</b>	None
<b>General advice:</b>	If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Keep out of reach of children.

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### Section 5 - Fire Fighting Measures

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<b>Flammable properties:</b>	Not flammable by OSHA criteria.
<b>Suitable extinguishing media:</b>	Water fog, foam, CO <sub>2</sub> , dry chemical
<b>Unsuitable extinguishing media:</b>	Not available
<b>Specific hazards arising from the chemical:</b>	Container may melt and leak in heat of fire. Do not allow run-off from firefighting to enter drains or water courses.
<b>Protective equipment for firefighters:</b>	Firefighters should wear full protective clothing including self-contained breathing apparatus.
<b>Hazardous combustion products:</b>	None known
<b>Sensitivity to mechanical impact:</b>	None known
<b>Explosion data:</b>	Not available
<b>Sensitivity to static discharge:</b>	Not available
<b>Personal precautions:</b>	Keep unnecessary personnel away. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak.

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### Section 6 - Accidental Release Measures

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<b>Personal precautions:</b>	Remove all sources of ignition. Wear personal protective equipment. Wash thoroughly after handling.
<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.
<b>Environmental precautions:</b>	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
<b>Methods for containment and cleaning up:</b>	Stop leak if without risk. Move containers from spill area. Before attempting clean up, refer to hazard data given above. Small spills may be absorbed with earth, sand or absorbent material swept up and placed in suitable, covered, and labeled containers. Prevent large spills from entering sewers or waterways. Contact emergency services and supplier for advice. Never return spills in original containers for re-use.

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### Section 7 - Handling and Storage

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<b>Precautions for safe handling:</b>	Put on appropriate personal protective equipment (see Section 8). Do not use near heat, open flame or any other ignition source. Take measures to prevent the buildup of
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electrostatic charge. Avoid contact with skin, eyes and clothing. Use an appropriate respirator when adequate ventilation is not available. Avoid breathing vapors or spray mists of the product.

**Storage:**

Store product in a cool, dry place, out of reach of children. Keep container closed when not in use. Keep away from food, drink and animal feedingstuffs. Keep tightly closed. Non-refillable container. Do not reuse or refill this container. Place in trash or offer for recycling if available.

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**Section 8 - Exposure Controls / Personal Protection**

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**Exposure guidelines:**

Components with Occupational Exposure Limits							
		Exposure Limits					
		OSHA PEL		ACGIH TLV		Supplier OEL	
Chemical name		ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
2,4-D, dimethylamine salt	TWA	Not listed		Not listed		Not listed	
Mecoprop-p, dimethylamine salt	TWA	Not established		Not established		Not established	
Dichlorprop-p, dimethylamine salt	TWA	Not established		Not established		Not established	

**Engineering controls:**

General ventilation normally adequate.

**Personal protective equipment:**

**Eye/Face protection:**

During application, prevent entry into eyes. Wear safety glasses with side shields if using in large applications.

**Skin and body protection:**

When using this product, wear protective eyewear, long-sleeved shirt, long pants, socks, shoes and rubber gloves.

**Respiratory protection:**

None required

**General hygiene considerations:**

Handle in accordance with good industrial hygiene and safety practice. When using, do not eat or drink. Wash hands before breaks and immediately after handling the product.

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**Section 9 - Physical & Chemical Properties**

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<b>Appearance:</b>	Clear
<b>Color:</b>	Amber
<b>Physical state:</b>	Liquid
<b>Odor:</b>	Mild
<b>Odor threshold:</b>	No data available
<b>pH:</b>	7.6
<b>Melting point:</b>	No data available
<b>Freezing point:</b>	No data available
<b>Boiling point:</b>	No data available
<b>Flash point:</b>	>200° F
<b>Evaporation rate:</b>	No data available
<b>Flammability limits in air, lower, % by volume:</b>	No data available

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<b>Flammability limits in air, upper, % by volume:</b>	No data available
<b>Vapor pressure:</b>	No data available
<b>Vapor density:</b>	No data available
<b>Relative density @ 20°C:</b>	1.00
<b>Octanol/water coefficient:</b>	No data available
<b>Auto-ignition temperature:</b>	No data available
<b>Decomposition temperature:</b>	No data available
<b>Solubility:</b>	Soluble in water
<b>% Volatile organic compounds:</b>	0

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### Section 10 - Chemical Stability & Reactivity Information

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#### Reactivity

<b>Conditions to avoid:</b>	Do not mix with other chemicals.
<b>Incompatible materials:</b>	Avoid strong oxidizers.

#### Chemical stability

<b>Product stability:</b>	Stable under recommended storage conditions.
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#### Other

<b>Hazardous decomposition products:</b>	None known
<b>Possibility of hazardous reactions:</b>	Hazardous polymerization does not occur.

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### Section 11 - Toxicological Information

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<b>Primary eye irritation:</b>	Causes moderate eye irritation (EPA tox. category III)
<b>Primary skin irritation:</b>	Non-irritating (EPA tox. category IV)
<b>Acute dermal:</b>	LD <sub>50</sub> > 5000 mg/kg (EPA tox. category IV)
<b>Acute inhalation:</b>	LC <sub>50</sub> > 2 mg/L (EPA tox. category IV)
<b>Acute oral:</b>	LD <sub>50</sub> > 5000 mg/kg (EPA tox. category IV)
<b>Sensitization:</b>	Not a skin sensitizer.
<b>Chronic effects:</b>	No data available
<b>Carcinogenicity:</b>	No data available
<b>Mutagenicity:</b>	No data available
<b>Reproductive effects:</b>	No data available
<b>Teratogenicity:</b>	No data available
<b>Ecotoxicity:</b>	No data available

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### Section 12 - Ecological Information

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<b>Environmental effects:</b>	No data available
<b>Aquatic toxicity:</b>	None
<b>Persistence / degradability:</b>	No data available
<b>Bioaccumulation / accumulation:</b>	No data available

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<b>Partition coefficient:</b>	No data available
<b>Mobility in environmental media:</b>	No data available
<b>Chemical fate information:</b>	No data available

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### Section 13 - Disposal Considerations

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<b>Waste codes:</b>	Not available
<b>Disposal instructions:</b>	Dispose in accordance with all applicable regulations.
<b>Waste from residues/unused products:</b>	Not available
<b>Contaminated packaging:</b>	Not available

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### Section 14 - Transportation Information

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<b>U.S. Department of Transportation (DOT):</b>	Not regulated
<b>IATA:</b>	Not regulated
<b>IMDG:</b>	Not regulated

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### Section 15 - Regulatory Information

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<b>29 CFR 1910.1200 hazardous chemical Occupational Safety and Health Administration (OSHA):</b>	No
<b>CERCLA (Superfund) reportable quantity:</b>	Not available

#### Hazard categories

##### Superfund Amendments and Reauthorization Act of 1986 (SARA):

Immediate Hazard	No
Delayed Hazard	No
Fire Hazard	No
Pressure Hazard	No
Reactivity Hazard	No

**Section 302 extremely hazardous Substance:** No

**Section 311 hazardous chemical:** No

**Clean Air Act (CAA):** Not available

**Clean Water Act (CWA):** Not available

**State regulations:** None

**FIFRA labeling:** 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 non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

**Signal word:** CAUTION

**Precautionary**

**statements:** Causes moderate eye irritation. Avoid contact with eyes, skin or clothing. When using this product, wear protective eyewear, long-sleeved shirt, long pants, socks, shoes and rubber gloves. 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. Washing hands thoroughly with soap and water before eating, drinking, chewing gum or using tobacco will reduce exposure. Avoid contamination of food or feedstuffs.

This product is toxic to aquatic invertebrates. Drift or runoff may adversely affect aquatic invertebrates and non-target plants. Do not apply directly to water. Do not contaminate water when disposing of equipment washwaters. Do not contaminate domestic or irrigation waters. Do not apply when weather conditions favor drift from target area. 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.

**Notification status:** All ingredients of this product are listed or are excluded from listing on the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

**California Prop. 65:** This product does not contain any chemicals known to the state of California to cause cancer, birth defects or any other reproductive harm.

**Disclaimer:** Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

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**SECTION 16 - OTHER INFORMATION**

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<b>HMIS ratings:</b>	Health Hazard 1    Flammability 0    Physical Hazard 0
<b>Item number(s):</b>	HG-75833; HG-75837; HG-95833; HG-95836; HG-96287; HG-96416; HG-96417; HG-96437; HG-96464;
<b>Formula number(s):</b>	21-0704
<b>Issue date:</b>	2/25/2016
<b>Prepared by:</b>	Spectrum Group Division of United Industries Corp. P.O. Box 142642 St. Louis, MO 63114-0642 (800) 242-1166

# SAFETY DATA SHEET

Issuing Date No data available

Revision Date 12-Jun-2013

Revision Number 1



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

### Product identifier

**Product Name** Alkaline Battery

### Other means of identification

**Synonyms** None

### Recommended use of the chemical and restrictions on use

**Recommended Use** Alkaline battery

**Uses advised against** No information available

### Details of the supplier of the safety data sheet

**Supplier Name** Spectrum Brands, Inc  
**Supplier Address** 3001 Deming Way  
Middleton WI 53562  
USA  
**Supplier Phone Number** Phone:703-527-3887  
Contact Phone1-479-254-1729  
**Supplier Email** marcy.stokes@spectrumbrands.com  
**Emergency telephone number**

## 2. HAZARDS IDENTIFICATION

### Classification

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200) This product is an article which is a sealed battery and as such does not require an MSDS per the OSHA hazard communication standard unless ruptured. The hazards indicated are for a ruptured battery.


Acute toxicity - Oral	Category 4
Acute toxicity - Inhalation (Gases)	Category 4
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin corrosion/irritation	Category 1 Sub-category A
Serious eye damage/eye irritation	Category 1



Specific target organ toxicity (repeated exposure)

Category 2

**GHS Label elements, including precautionary statements****Emergency Overview**

<b>Signal word</b>	<b>Danger</b>		
<b>Hazard Statements</b>			
Harmful if swallowed			
Harmful if inhaled			
Causes severe skin burns and eye damage			
May cause damage to organs through prolonged or repeated exposure			
			
<p>This product is an article which contains a chemical substance. Safety information is given for exposure to the article as sold. Intended use of the product should not result in exposure to the chemical substance. This is a battery. In case of rupture: the above hazards exist.</p>			
<b>Appearance</b>	Solid	<b>Physical State</b>	Solid
			<b>Odor</b> Odorless

**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling  
 Do not eat, drink or smoke when using this product  
 Use only outdoors or in a well-ventilated area  
 Do not breathe dust/fume/gas/mist/vapors/spray  
 Wear protective gloves/protective clothing/eye protection/face protection

**Precautionary Statements - Response**

Immediately call a POISON CENTER or doctor/physician  
 Specific treatment (see supplemental first aid instructions on this label)

**Eyes**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 Immediately call a POISON CENTER or doctor/physician

**Skin**

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower  
 Wash contaminated clothing before reuse

**Inhalation**

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  
 Immediately call a POISON CENTER or doctor/physician

**Ingestion**

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell  
 Rinse mouth  
 Do NOT induce vomiting



**Precautionary Statements - Storage**

Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

Not applicable

**Unknown Toxicity**

5% of the mixture consists of ingredient(s) of unknown toxicity

**Other information**

Toxic to aquatic life with long lasting effects

**Interactions with Other Chemicals**

Use of alcoholic beverages may enhance toxic effects.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS No	Weight-%	Trade Secret
Manganese dioxide	1313-13-9	15 - 40	*
Steel	7439-89-6	19-23	*
Zinc	7440-66-6	10 - 30	*
Potassium hydroxide	1310-58-3	5 - 10	*
Graphite	7782-42-5	3 - 7	*
Barium sulfate	7727-43-7	3 - 7	*

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

**4. FIRST AID MEASURES****First aid measures****General Advice**

First aid is upon rupture of sealed battery.

**Eye Contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing. Seek immediate medical attention/advice.

**Skin Contact**

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Seek immediate medical attention/advice.

**Inhalation**

Remove to fresh air. If breathing has stopped, give artificial respiration. Get medical attention immediately. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen. Delayed pulmonary edema may occur. Get medical attention immediately if symptoms occur.



- Ingestion** Do NOT induce vomiting. Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately.
- Self-protection of the first aider** Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid contact with skin, eyes or clothing. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Use personal protective equipment as required. Wear personal protective clothing (see section 8).

### **Most important symptoms and effects, both acute and delayed**

**Most Important Symptoms and Effects** Burning sensation. Coughing and/ or wheezing. Difficulty in breathing.

### **Indication of any immediate medical attention and special treatment needed**

**Notes to Physician** Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure.

## **5. FIRE-FIGHTING MEASURES**

### **Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

### **Unsuitable extinguishing media**

CAUTION: Use of water spray when fighting fire may be inefficient.

### **Specific Hazards Arising from the Chemical**

The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapors.

#### **Uniform Fire Code**

Corrosive: Other--Solid  
Toxic: Solid  
Oxidizer: Class 1--Solid

### **Hazardous Combustion Products**

Carbon oxides.

### **Explosion Data**

**Sensitivity to Mechanical Impact** No.

**Sensitivity to Static Discharge** No.

### **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** Attention! Corrosive material. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Avoid generation of dust. Do not breathe dust.

**Other Information** Refer to protective measures listed in Sections 7 and 8.

### Environmental Precautions

**Environmental Precautions** Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so. Should not be released into the environment. Do not allow to enter into soil/subsoil. Prevent product from entering drains.

### 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** Pick up and transfer to properly labeled containers.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

**Handling** In case of rupture: Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Use only with adequate ventilation and in closed systems. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Do not breathe dust. Avoid generation of dust.

### Conditions for safe storage, including any incompatibilities

**Storage** Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from moisture. Store locked up. Keep out of the reach of children. Store away from other materials.

**Incompatible Products** Acids. Bases. Oxidizing agent.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

### Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
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Manganese dioxide 1313-13-9	TWA: 0.02 mg/m <sup>3</sup> Mn TWA: 0.1 mg/m <sup>3</sup> Mn	(vacated) Ceiling: 5 mg/m <sup>3</sup> Ceiling: 5 mg/m <sup>3</sup> Mn	IDLH: 500 mg/m <sup>3</sup> Mn TWA: 1 mg/m <sup>3</sup> Mn STEL: 3 mg/m <sup>3</sup> Mn
Zinc 7440-66-6	STEL: 10 mg/m <sup>3</sup> respirable fraction TWA: 2 mg/m <sup>3</sup> respirable fraction	TWA: 5 mg/m <sup>3</sup> fume TWA: 15 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable fraction	IDLH: 500 mg/m <sup>3</sup> Ceiling: 15 mg/m <sup>3</sup> dust TWA: 5 mg/m <sup>3</sup> dust and fume STEL: 10 mg/m <sup>3</sup> fume
Potassium hydroxide 1310-58-3	Ceiling: 2 mg/m <sup>3</sup>	(vacated) Ceiling: 2 mg/m <sup>3</sup>	Ceiling: 2 mg/m <sup>3</sup>
Graphite 7782-42-5	TWA: 2 mg/m <sup>3</sup> respirable fraction all forms except graphite fibers	TWA: 15 mg/m <sup>3</sup> total dust synthetic TWA: 5 mg/m <sup>3</sup> respirable fraction synthetic (vacated) TWA: 2.5 mg/m <sup>3</sup> respirable dust natural (vacated) TWA: 10 mg/m <sup>3</sup> total dust synthetic (vacated) TWA: 5 mg/m <sup>3</sup> respirable fraction synthetic TWA: 15 mppcf natural	IDLH: 1250 mg/m <sup>3</sup> TWA: 2.5 mg/m <sup>3</sup> respirable dust
Barium sulfate 7727-43-7	TWA: 5 mg/m <sup>3</sup> inhalable fraction, particulate matter containing no asbestos and <1% crystalline silica	TWA: 15 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable fraction (vacated) TWA: 10 mg/m <sup>3</sup> total dust (vacated) TWA: 5 mg/m <sup>3</sup> respirable fraction	TWA: 10 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable dust

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits Immediately Dangerous to Life or Health

#### Other Exposure Guidelines

Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992) See section 15 for national exposure control parameters

#### Appropriate engineering controls

#### Engineering Measures

Showers  
Eyewash stations  
Ventilation systems

#### Individual protection measures, such as personal protective equipment

#### Eye/Face Protection

Face protection shield.

#### Skin and Body Protection

Wear protective gloves and protective clothing. Long sleeved clothing. Chemical resistant apron. Impervious gloves.

#### Respiratory Protection

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

#### Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. For environmental protection, remove and wash all contaminated protective equipment before re-use. Do not breathe dust.

## 9. PHYSICAL AND CHEMICAL PROPERTIES



**Physical and Chemical Properties**

<b>Physical State</b>	Solid	<b>Odor</b>	Odorless
<b>Appearance</b>	Solid	<b>Odor Threshold</b>	No information available
<b>Color</b>	No information available		

<b><u>Property</u></b>	<b><u>Values</u></b>	<b><u>Remarks</u></b>	<b><u>Method</u></b>
<b>pH</b>	No data available	None known	
<b>Melting / freezing point</b>	No data available	None known	
<b>Boiling point / boiling range</b>	No data available	None known	
<b>Flash Point</b>	No data available	None known	
<b>Evaporation Rate</b>	No data available	None known	
<b>Flammability (solid, gas)</b>	No data available	None known	
<b>Flammability Limit in Air</b>			
<b>Upper flammability limit</b>	No data available		
<b>Lower flammability limit</b>	No data available		
<b>Vapor pressure</b>	No data available	None known	
<b>Vapor density</b>	No data available	None known	
<b>Specific Gravity</b>	No data available	None known	
<b>Water Solubility</b>	Immiscible in water	None known	
<b>Solubility in other solvents</b>	No data available	None known	
<b>Partition coefficient: n-octanol/water</b>	No data available	None known	
<b>Autoignition temperature</b>	No data available	None known	
<b>Decomposition temperature</b>	No data available	None known	
<b>Kinematic viscosity</b>	No data available	None known	
<b>Dynamic viscosity</b>	No data available	None known	
<b>Explosive properties</b>	No data available		
<b>Oxidizing Properties</b>	No data available		

**Other Information**

<b>Softening Point</b>	No data available
<b>VOC Content (%)</b>	No data available
<b>Particle Size</b>	No data available
<b>Particle Size Distribution</b>	

## 10. STABILITY AND REACTIVITY

### Reactivity

No data available.

### Chemical stability

Stable under recommended storage conditions.

### Possibility of Hazardous Reactions

None under normal processing.

### Hazardous Polymerization

Hazardous polymerization does not occur.

### Conditions to avoid

Exposure to air or moisture over prolonged periods. Excessive heat.

### Incompatible materials

Acids. Bases. Oxidizing agent.

### Hazardous Decomposition Products

Carbon oxides.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

#### **Product Information**

Product does not present an acute toxicity hazard based on known or supplied information. In case of rupture:.

#### **Inhalation**

Specific test data for the substance or mixture is not available. Corrosive by inhalation. (based on components). Inhalation of corrosive fumes/gases may cause coughing, choking, headache, dizziness, and weakness for several hours. Pulmonary edema may occur with tightness in the chest, shortness of breath, bluish skin, decreased blood pressure, and increased heart rate. Inhaled corrosive substances can lead to a toxic edema of the lungs. Pulmonary edema can be fatal. May cause irritation of respiratory tract. Harmful by inhalation.

#### **Eye Contact**

Specific test data for the substance or mixture is not available. Causes burns. (based on components). Corrosive to the eyes and may cause severe damage including blindness. Causes serious eye damage. May cause irreversible damage to eyes.

#### **Skin Contact**

Specific test data for the substance or mixture is not available. Corrosive. (based on components). Causes burns.

#### **Ingestion**

Specific test data for the substance or mixture is not available. Causes burns. (based on components). Ingestion causes burns of the upper digestive and respiratory tracts. May cause severe burning pain in the mouth and stomach with vomiting and diarrhea of dark blood. Blood pressure may decrease. Brownish or yellowish stains may be seen around the mouth. Swelling of the throat may cause shortness of breath and choking. May cause lung damage if swallowed. May be fatal if swallowed and enters airways. Ingestion may cause irritation to mucous membranes. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. May be harmful if swallowed.

**Component Information**

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Manganese dioxide 1313-13-9	= 9000 mg/kg ( Rat )	-	-
Potassium hydroxide 1310-58-3	= 214 mg/kg ( Rat )	-	-
Graphite 7782-42-5	> 10000 mg/kg ( Rat )	-	-

**Information on toxicological effects**

**Symptoms** Erythema (skin redness). Burning. May cause blindness. Coughing and/ or wheezing.

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

**Sensitization** No information available.

**Mutagenic Effects** No information available.

**Carcinogenicity** Contains no ingredient listed as a carcinogen.

**Reproductive Toxicity** No information available.

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

**STOT - repeated exposure** Causes damage to organs through prolonged or repeated exposure. Based on classification criteria from the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200), this product has been determined to cause systemic target organ toxicity from chronic or repeated exposure. (STOT RE).

**Chronic Toxicity** Chronic exposure to corrosive fumes/gases may cause erosion of the teeth followed by jaw necrosis. Bronchial irritation with chronic cough and frequent attacks of pneumonia are common. Gastrointestinal disturbances may also be seen. Avoid repeated exposure. Prolonged exposure may cause chronic effects. May cause adverse effects on the bone marrow and blood-forming system.

**Target Organ Effects** Respiratory system. Eyes. Skin. Gastrointestinal tract (GI). Blood. Central Nervous System (CNS). Central Vascular System (CVS). Kidney. Cardiovascular system. Liver.

**Aspiration Hazard** No information available.

**Numerical measures of toxicity Product Information**

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

**ATEmix (oral)**

785.00 mg/kg

**ATEmix (inhalation-gas)**

10,465.00 ppm (4 hr)

**ATEmix (inhalation-dust/mist)**

3.50 mg/l

**ATEmix (inhalation-vapor)**

26.00 ATEmix

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Toxic to aquatic life with long lasting effects.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Zinc 7440-66-6	96h EC50: 0.11 - 0.271 mg/L (Pseudokirchneriella subcapitata) 72h EC50: 0.09 - 0.125 mg/L (Pseudokirchneriella subcapitata)	96h LC50: 2.16 - 3.05 mg/L (Pimephales promelas) 96h LC50: 0.211 - 0.269 mg/L (Pimephales promelas) 96h LC50: = 2.66 mg/L (Pimephales promelas) 96h LC50: = 30 mg/L (Cyprinus carpio) 96h LC50: = 0.45 mg/L (Cyprinus carpio) 96h LC50: = 7.8 mg/L (Cyprinus carpio) 96h LC50: = 3.5 mg/L (Lepomis macrochirus) 96h LC50: = 0.24 mg/L (Oncorhynchus mykiss) 96h LC50: = 0.59 mg/L (Oncorhynchus mykiss) 96h LC50: = 0.41 mg/L (Oncorhynchus mykiss)		48h EC50: 0.139 - 0.908 mg/L
Potassium hydroxide 1310-58-3		96h LC50: = 80 mg/L (Gambusia affinis)		

### Persistence and Degradability

No information available.

### Bioaccumulation

Chemical Name	Log Pow
Manganese dioxide 1313-13-9	<0
Potassium hydroxide 1310-58-3	0.83

### Other adverse effects

No information available.



### 13. DISPOSAL CONSIDERATIONS

#### Waste treatment methods

#### **Disposal methods**

This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

#### **Contaminated Packaging**

Dispose of contents/containers in accordance with local regulations.

#### **California Hazardous Waste Codes 181**

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California Hazardous Waste
Zinc 7440-66-6	Ignitable powder Toxic
Potassium hydroxide 1310-58-3	Toxic Corrosive
Barium sulfate 7727-43-7	Toxic soluble

### 14. TRANSPORT INFORMATION

**DOT** NOT REGULATED

**TDG** Not regulated

**MEX** Not regulated

**ICAO** Not regulated

**IATA** Not regulated

**IMDG/IMO** Not regulated

**RID** Not regulated

**ADR** Not regulated

**ADN** Not regulated

### 15. REGULATORY INFORMATION

#### **International Inventories**

TSCA Complies  
DSL All components are listed either on the DSL or NDSL.

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory



DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

### 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	CAS No	Weight-%	SARA 313 - Threshold Values %
Manganese dioxide - 1313-13-9	1313-13-9	15 - 40	1.0
Zinc - 7440-66-6	7440-66-6	10 - 30	1.0
Barium sulfate - 7727-43-7	7727-43-7	3 - 7	1.0

#### SARA 311/312 Hazard Categories

Acute Health Hazard	No
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
Zinc 7440-66-6		X	X	
Potassium hydroxide 1310-58-3	1000 lb			X

#### CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Zinc 7440-66-6	1000 lb		RQ 454 kg final RQ RQ 1000 lb final RQ
Potassium hydroxide 1310-58-3	1000 lb		RQ 1000 lb final RQ RQ 454 kg final RQ

### US State Regulations

#### California Proposition 65

This product does not contain any Proposition 65 chemicals.

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

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Rhode Island	Illinois
Manganese dioxide 1313-13-9			X	X	X
Zinc 7440-66-6	X	X	X	X	
Potassium hydroxide 1310-58-3	X	X	X	X	
Barium sulfate 7727-43-7	X	X	X	X	
Graphite 7782-42-5	X	X	X		



**International Regulations****Mexico****National occupational exposure limits**

Component	Carcinogen Status	Exposure Limits
Manganese dioxide 1313-13-9 ( 15 - 40 )		Mexico: TWA= 0.2 mg/m <sup>3</sup>
Graphite 7782-42-5 ( 3 - 7 )		Mexico: TWA= 2 mg/m <sup>3</sup>

Mexico - Occupational Exposure Limits - Carcinogens

**Canada****WHMIS Hazard Class**

Non-controlled

<b>16. OTHER INFORMATION</b>
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<b>NFPA</b>	<b>Health Hazards</b> 0	<b>Flammability</b> 0	<b>Instability</b> 0	<b>Physical and Chemical Hazards</b> -
<b>HMIS</b>	<b>Health Hazards</b> 0	<b>Flammability</b> 0	<b>Physical Hazard</b> 0	<b>Personal Protection</b> X

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**Revision Note** No information available

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a 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 process, unless specified in the text

**End of Safety Data Sheet**