

# Material Safety Data Sheet

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Revision Number 2

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name** Perfpower Go Green Batteries

**Recommended Use** Alkaline battery.

### Supplier Address

Power By Go Green dba Perfpower Go  
Green

4675 Route 9 N

Howell

New Jersey

07731

US

Phone:7329945901

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## 2. HAZARDS IDENTIFICATION

### Emergency Overview

This product is an article. No exposure to hazardous chemicals is expected to occur during intended product use. Misuse of the product may result in exposure to hazardous chemicals.

**Appearance** Green

**Physical State** Solid.

**Odor** None

### Potential Health Effects

#### Principle Routes of Exposure

Eye contact. Skin contact.

#### Acute Toxicity

##### Eyes

In case of rupture: Corrosive to the eyes and may cause severe damage including blindness.

##### Skin

In case of rupture: Causes burns.

##### Inhalation

In case of rupture: Harmful by inhalation. Causes burns.

##### Ingestion

In case of rupture: Harmful if swallowed. Ingestion causes burns of the upper digestive and respiratory tract.

#### Chronic Effects

Upon rupture of sealed battery: Possible risks of irreversible effects. 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. May cause adverse effects on the bone marrow and blood-forming system. May cause adverse liver effects.

#### Aggravated Medical Conditions

Central nervous system. Pre-existing eye disorders. Blood disorders. Kidney disorders. Liver disorders. Skin disorders. Respiratory disorders. Central Vascular System (CVS).

#### Environmental Hazard

See Section 12 for additional Ecological Information. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %
Manganese dioxide	1313-13-9	40-70
Zinc	7440-66-6	15-40
Fe(III) 2-[N,N-bis(carboxylatomethyl)amino] benzoate, 5H <sub>2</sub> O	94731-06-3	15-40
Water	7732-18-5	10-30
Potassium hydroxide	1310-58-3	5-10
Carbon	7440-44-0	1 - 5
brass	12597-71-6	1 - 5

### 4. FIRST AID MEASURES

<b>General Advice</b>	This is a battery. In case of rupture:
<b>Eye Contact</b>	Immediate medical attention is required. 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.
<b>Skin Contact</b>	Immediate medical attention is required. Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes.
<b>Inhalation</b>	Move to fresh air. Call a physician or Poison Control Center immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.
<b>Ingestion</b>	Call a physician or Poison Control Center immediately. Do NOT induce vomiting.
<b>Notes to Physician</b>	Treat symptomatically.
<b>Protection of First-aiders</b>	Use personal protective equipment. Avoid contact with skin, eyes and clothing.

### 5. FIRE-FIGHTING MEASURES

<b>Flammable Properties</b>	Not flammable.
<b>Flash Point</b>	Not determined.
<b>Suitable Extinguishing Media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<b>Hazardous Combustion Products</b>	Hazardous metal fumes and oxides.
<b>Explosion Data</b>	
<b>Sensitivity to Mechanical Impact</b>	No.
<b>Specific Hazards Arising from the Chemical</b>	The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapors. In the event of fire and/or explosion do not breathe fumes. Sealed containers may rupture when heated
<b>Sensitivity to Static Discharge</b>	No.
<b>Protective Equipment and Precautions for Firefighters</b>	
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Move containers from fire area if you can do it without risk.	

**NFPA**                      **Health Hazard** 1                      **Flammability** 0                      **Stability** 0                      **Physical and Chemical Hazards** -

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions</b>	Use personal protective equipment. Avoid contact with skin, eyes and clothing.
<b>Environmental Precautions</b>	Refer to protective measures listed in Sections 7 and 8.
<b>Methods for Containment</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for Cleaning Up</b>	Use personal protective equipment. Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly.

## 7. HANDLING AND STORAGE

<b>Handling</b>	In case of rupture: Handle product only in closed system or provide appropriate exhaust ventilation at machinery. Avoid contact with skin, eyes and clothing.
<b>Storage</b>	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat. Protect from moisture.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Manganese dioxide 1313-13-9	TWA: 0.2 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
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>
brass 12597-71-6	TWA: 1 mg/m <sup>3</sup> Cu dust and mist		IDLH: 100 mg/m <sup>3</sup> Cu dust and mist TWA: 1 mg/m <sup>3</sup> Cu dust and mist

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

<b>Other Exposure Guidelines</b>	Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).
<b>Engineering Measures</b>	Showers Eyewash stations Ventilation systems
<b>Personal Protective Equipment</b>	
<b>Eye/Face Protection</b>	Tightly fitting safety goggles.
<b>Skin and Body Protection</b>	No special protective equipment required.
<b>Respiratory Protection</b>	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
<b>Hygiene Measures</b>	Handle in accordance with good industrial hygiene and safety practice. When using, do not eat, drink or smoke. Remove and wash contaminated clothing before re-use. Keep away from food, drink and animal feeding stuffs.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Green.	<b>Odor</b>	None.
<b>Odor Threshold</b>	No information available	<b>Physical State</b>	Solid
<b>pH</b>	No information available		
<b>Flash Point</b>	No information available.	<b>Autoignition Temperature</b>	No information available
<b>Decomposition Temperature</b>	No information available	<b>Boiling Point/Range</b>	No information available
<b>Melting Point/Range</b>	No information available		
<b>Flammability Limits in Air</b>	No information available	<b>Explosion Limits</b>	No information available
<b>Water Solubility</b>	Immiscible in water	<b>Solubility</b>	No information available
<b>Evaporation Rate</b>	No information available	<b>Vapor Pressure</b>	No data available
<b>Vapor Density</b>	No data available	<b>Partition Coefficient: n-octanol/water</b>	

## 10. STABILITY AND REACTIVITY

<b>Stability</b>	Stable under recommended storage conditions.
<b>Incompatible Products</b>	Incompatible with strong acids and bases. Incompatible with oxidizing agents.
<b>Conditions to Avoid</b>	Exposure to air or moisture over prolonged periods.
<b>Hazardous Decomposition Products</b>	Thermal decomposition can lead to release of irritating gases and vapors.
<b>Hazardous Polymerization</b>	Hazardous polymerization does not occur.

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity

#### Product Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Manganese dioxide	= 9000 mg/kg ( Rat )	-	-
Potassium hydroxide	= 214 mg/kg ( Rat )	-	-
Carbon	> 10000 mg/kg ( Rat )	-	-

### Chronic Toxicity

**Chronic Toxicity** Upon rupture of sealed battery: Possible risks of irreversible effects. 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. May cause adverse effects on the bone marrow and blood-forming system. May cause adverse liver effects.

### **Target Organ Effects**

Blood. Central nervous system (CNS). Central Vascular System (CVS). Eyes. Kidney. Liver. Respiratory system. Skin.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Harmful to aquatic organisms.

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

Chemical Name	Log Pow
Manganese dioxide	0
Potassium hydroxide	0.83

## 13. DISPOSAL CONSIDERATIONS

### Waste 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. Dispose of in accordance with local regulations

### Contaminated Packaging

Do not re-use empty containers.

### 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 EHW	California Carc	California Hazardous Waste	California Waste - Part 2
Zinc			Ignitable powder	STLC (for PBTs): 250 mg/L TTLC (for PBTs): 5000 mg/kg
Potassium hydroxide			Toxic Corrosive	
brass			Toxic	STLC (for PBTs): 25 mg/L TTLC (for PBTs): 2500 mg/kg

## 14. TRANSPORT INFORMATION

**DOT**

NOT REGULATED

**14. TRANSPORT INFORMATION**

<u><b>TDG</b></u>	Not regulated
<u><b>MEX</b></u>	Not regulated
<u><b>ICAO</b></u>	Not regulated
<u><b>IATA</b></u>	Not regulated
<u><b>IMDG/IMO</b></u>	Not regulated



Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Potassium hydroxide	X	X	X		X
Manganese dioxide			X	X	X

### International Regulations

#### Mexico - Grade

Minimum risk, Grade 0

Chemical Name	Carcinogen Status	Exposure Limits
Manganese dioxide		Mexico: TWA= 0.2 mg/m <sup>3</sup>

#### Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

#### WHMIS Hazard Class

Non-controlled

Chemical Name	NPRI
Manganese dioxide	X

#### Legend

NPRI - National Pollutant Release Inventory

## 16. OTHER INFORMATION

**Prepared By** Product Stewardship  
23 British American Blvd.  
Latham, NY 12110  
1-800-572-6501

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**Revision Note** No information available

#### General Disclaimer

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**End of Safety Data Sheet**