

# SAFETY DATA SHEET

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

### Product identifier

**Product Name** MITSUBISHI Alkaline Dry Battery LR03 AAA

### 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** GUANGZHOU TIANQIU ENTERPRISE CO., LTD.

**Supplier Address** 9/F TianQiu Business Building No.16-30, He Yi Rd., San Yuan Li Ave., GuangZhou China  
GUANGZHOU  
GUANDONG  
510410  
CN

**Supplier Phone Number** Phone:8620-36322277  
Fax:8620-36323339

**Supplier Email** qd@gztianqiu.com

### Emergency telephone number

**Company Emergency Phone Number** 8620-13825131170

## 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 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>	Gold	<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**

4.16% of the mixture consists of ingredient(s) of unknown toxicity

**Other information**

Very toxic to aquatic life with long lasting effects

**Interactions with Other Chemicals**

No information available.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%	Trade Secret
Manganese dioxide	1313-13-9	15 - 40	*
Iron	7439-89-6	10 - 30	*
Zinc	7440-66-6	10 - 30	*
Potassium hydroxide	1310-58-3	3 - 7	*
Copper	7440-50-8	1 - 5	*
Graphite	7782-42-5	1 - 5	*

\*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: Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.

**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.



<b>Inhalation</b>	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.
<b>Ingestion</b>	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.
<b>Self-protection of the first aider</b>	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.

### Hazardous Combustion Products

Carbon oxides.

<b>Physical/Chemical Reaction Properties</b>	No data available.
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### Explosion Data

<b>Sensitivity to Mechanical Impact</b>	No.
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<b>Sensitivity to Static Discharge</b>	No.
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### 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

<b>Personal precautions</b>	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.
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<b>Other Information</b>	Refer to protective measures listed in Sections 7 and 8.
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### Environmental precautions

<b>Environmental precautions</b>	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.
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### Methods and material for containment and cleaning up

<b>Methods for containment</b>	Prevent further leakage or spillage if safe to do so.
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<b>Methods for cleaning up</b>	Pick up and transfer to properly labeled containers.
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**7. HANDLING AND STORAGE**

**Precautions for safe handling**

**Handling** In case of rupture. Use only with adequate ventilation and in closed systems. Avoid contact with skin, eyes or clothing.

**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
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>
Copper 7440-50-8	TWA: 0.2 mg/m <sup>3</sup> fume TWA: 1 mg/m <sup>3</sup> Cu dust and mist	TWA: 0.1 mg/m <sup>3</sup> fume TWA: 1 mg/m <sup>3</sup> dust and mist (vacated) TWA: 0.1 mg/m <sup>3</sup> Cu dust, fume, mist	IDLH: 100 mg/m <sup>3</sup> dust, fume and mist TWA: 1 mg/m <sup>3</sup> dust and mist TWA: 0.1 mg/m <sup>3</sup> fume
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> respirable dust TWA: 2.5 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 NIOSH IDLH Immediately Dangerous to Life or Health

**Appropriate engineering controls**

**Engineering Measures** Showers  
Eyewash stations  
Ventilation systems

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



<b>Eye/face protection</b>	If splashes are likely to occur:. Face protection shield. None required for consumer use.
<b>Skin and body protection</b>	Wear protective gloves and protective clothing. Long sleeved clothing. Chemical resistant apron. Impervious gloves.
<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. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. 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>	Gold	<b>Odor Threshold</b>	No information available
<b>Color</b>	No information available		

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

#### Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Manganese dioxide 1313-13-9	= 9000 mg/kg ( Rat )	-	-
Iron	= 984 mg/kg ( Rat )	-	-





7439-89-6			
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** No known effect based on information supplied. 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.

**Target Organ Effects** Respiratory system. Eyes. Skin. Gastrointestinal tract (GI).

**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)**

908.00 mg/kg

**ATEmix (inhalation-gas)**

12,566.00 ppm (4 hr)

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

4.20 mg/l

**ATEmix (inhalation-vapor)**

31.00 ATEmix



## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Harmful to aquatic life. Very toxic to aquatic life with long lasting effects.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Iron 7439-89-6		96h LC50: = 13.6 mg/L ( <i>Morone saxatilis</i> )		
Zinc 7440-66-6	96h EC50: 0.11 - 0.271 mg/L ( <i>Pseudokirchneriella subcapitata</i> ) 72h EC50: 0.09 - 0.125 mg/L ( <i>Pseudokirchneriella subcapitata</i> )	96h LC50: 2.16 - 3.05 mg/L ( <i>Pimephales promelas</i> ) 96h LC50: 0.211 - 0.269 mg/L ( <i>Pimephales promelas</i> ) 96h LC50: = 2.66 mg/L ( <i>Pimephales promelas</i> ) 96h LC50: = 30 mg/L ( <i>Cyprinus carpio</i> ) 96h LC50: = 0.45 mg/L ( <i>Cyprinus carpio</i> ) 96h LC50: = 7.8 mg/L ( <i>Cyprinus carpio</i> ) 96h LC50: = 3.5 mg/L ( <i>Lepomis macrochirus</i> ) 96h LC50: = 0.24 mg/L ( <i>Oncorhynchus mykiss</i> ) 96h LC50: = 0.59 mg/L ( <i>Oncorhynchus mykiss</i> ) 96h LC50: = 0.41 mg/L ( <i>Oncorhynchus mykiss</i> )		48h EC50: 0.139 - 0.908 mg/L
Potassium hydroxide 1310-58-3		96h LC50: = 80 mg/L ( <i>Gambusia affinis</i> )		
Copper 7440-50-8	96h EC50: 0.031 - 0.054 mg/L ( <i>Pseudokirchneriella subcapitata</i> ) 72h EC50: 0.0426 - 0.0535 mg/L ( <i>Pseudokirchneriella subcapitata</i> )	96h LC50: 0.0068 - 0.0156 mg/L ( <i>Pimephales promelas</i> ) 96h LC50: = 0.112 mg/L ( <i>Poecilia reticulata</i> ) 96h LC50: = 0.3 mg/L ( <i>Cyprinus carpio</i> ) 96h LC50: = 0.8 mg/L ( <i>Cyprinus carpio</i> ) 96h LC50: = 1.25 mg/L ( <i>Lepomis macrochirus</i> ) 96h LC50: = 0.052 mg/L ( <i>Oncorhynchus mykiss</i> ) 96h LC50: = 0.2 mg/L ( <i>Pimephales promelas</i> ) 96h LC50: < 0.3 mg/L ( <i>Pimephales promelas</i> )		48h EC50: = 0.03 mg/L

### 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. Dispose of contents/containers in accordance with local regulations.

**Contaminated Packaging** Do not reuse 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 Hazardous Waste
Zinc 7440-66-6	Ignitable powder Toxic
Potassium hydroxide 1310-58-3	Toxic Corrosive
Copper 7440-50-8	Toxic

**14. TRANSPORT INFORMATION**

**DOT**  
 Proper Shipping Name NOT REGULATED  
 Hazard Class NON REGULATED  
 N/A

**TDG** Not regulated

**MEX** Not regulated

**ICAO** Not regulated

**IATA**  
 Proper Shipping Name Not regulated  
 Hazard Class NON REGULATED  
 N/A

**IMDG/IMO**  
 Hazard Class Not regulated  
 N/A

**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/NDSL - 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
Copper - 7440-50-8	7440-50-8	1 - 5	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
Copper 7440-50-8		X	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
Copper 7440-50-8	5000 lb		RQ 5000 lb final RQ RQ 2270 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	
Copper 7440-50-8	X	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>
Copper 7440-50-8 ( 1 - 5 )		Mexico: TWA= 1 mg/m <sup>3</sup> Mexico: TWA= 0.2 mg/m <sup>3</sup> Mexico: STEL= 2 mg/m <sup>3</sup>
Graphite 7782-42-5 ( 1 - 5 )		Mexico: TWA= 2 mg/m <sup>3</sup>

Mexico - Occupational Exposure Limits - Carcinogens

**Canada**

**WHMIS Hazard Class**

Not determined

**16. OTHER INFORMATION**

<b>NFPA</b>	<b>Health Hazards</b> 1	<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

**Prepared By** Product Stewardship  
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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**

