# SAFETY DATA SHEET

**Issuing Date:02-Januar-2020** **Revision Date: 27-March-2024** **Revision Number:8**

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

**Product identifier**
**Product Name: Valve Regulated Lead-Acid Battery**

**Other means of identification**
**Synonyms: MP, MPC, MPH, MPL- Series**

**Recommended use of the chemical and restrictions on use**
**Recommended Use:** Lead-Acid (Non-Spillable) Battery
**Uses advised against:** No information available

**Details of the supplier of the safety data sheet**

**Manufactory Address: Kung Long Batteries Industrial Co., Ltd.**

**1.) 40 - Ba Chanh Thau - Kp2 - TT.**
**Ben Luc - Huyen Ben Luc - Tinh Long An Vietnam**
**2.) Cum Cong Nghiep Duc My-xa**
**Duc Hoa Dong - Huyen Duc Hoa - Tinh Long An 81999 Vietnam**

## 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 (Vapors) | Category 4 |
| Acute toxicity - Inhalation (Dusts/Mists) | Category 4 |
| Skin corrosion/irritation | Category 1 Sub-category A |
| Serious eye damage/eye irritation | Category 2 |
| Carcinogenicity | Category 1A |
| Reproductive toxicity | Category 1A |
| Specific target organ toxicity (repeated exposure) | Category 2 |

**GHS Label elements, including precautionary statements**

**Emergency Overview**

**Signal word Danger**

**Hazard Statements**
Harmful if swallowed
Harmful if inhaled
Causes severe skin burns and eye damage
Causes serious eye irritation
May cause cancer
May damage fertility or the unborn child
**May cause damage to organs through prolonged or repeated exposure**

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.

**Appearance:** Gray black cuboid battery **Physical State:** Solid **Odor:** Odorless

**Precautionary Statements - Prevention**
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
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

**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**
0.6% 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**
Use of alcoholic beverages may enhance toxic effects.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical characterization: Mixtures

※PBB spices or PBDE spices is not involved

| Chemical | CAS No | Weight-% | Trade Secret |
|---|---|---|---|
| Lead | 7439-92-1 | 45 ~ 60% | * |
| Lead dioxide | 1309-60-0 | 15 ~ 25% | * |
| Sulfuric acid (Electrolyte) | 7664-93-9 | 15 ~ 20% | * |
| Calcium (Lead calcium alloy) | 7440-70-2 | <0.06% | * |
| Tin | 7440-31-5 | <0.6% | * |
| Arsenic (Inorganic) | 7440-38-2 | <0.0006% | * |
| Non-Hazardous Materials | N/A | 5 ~ 10% | * |

**(The non-hazardous materials include ABS plastic, glass fiber, rubber, copper, expoxide-resin glue)**

*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. Seek immediate medical attention/advice. Remove contact lenses, if present and easy to do. Continue rinsing.

**Skin Contact** Immediate medical attention is required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

**Inhalation** Remove to fresh air. If symptoms persist, call a physician. If breathing has stopped, give artificial respiration. Get medical attention immediately. If not breathing, give artificial respiration. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. If breathing is difficult, (trained personnel should) give oxygen. Seek immediate medical attention/advice. Delayed pulmonary edema may occur.

**Ingestion** Do NOT induce vomiting. Rinse mouth. 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. Lead poisoning is characterized by a metallic taste in the mouth, loss of appetite, indigestion, nausea, vomiting, constipation, sleep disturbances and overall weakness. Severe exposures can lead to shock, circulatory collapse and death.

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

**Notes to Physician** Treat symptomatically. 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: Acid-Liquid<br>Toxic: Liquid |

**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. |
| **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. |

**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 |
|---|---|---|---|
| Lead<br>7439-92-1 | TWA: 0.05 mg/m3 | TWA: 50 µg/m3 TWA: 50 µg/m3 Pb<br>Action Level: 30 µg/m3 Poison, See 29 CFR 1910.1025 Action Level: 30 µg/m3 Pb Poison, See 29 CFR 1910.1025 | IDLH: 100 mg/m3<br>TWA: 0.050 mg/m3 |
| Lead dioxide<br>1309-60-0 | TWA: 0.05 mg/m3 Pb | TWA: 50 µg/m3 Pb<br>Action Level: 30 µg/m3 Pb Poison, See 29 CFR 1910.1025 | IDLH: 100 mg/m3 Pb<br>TWA: 0.050 mg/m3 Pb |
| Sulfuric acid<br>7664-93-9 | TWA: 0.2 mg/m3 thoracic fraction | TWA: 1 mg/m3<br>(vacated) TWA: 1 mg/m3 | IDLH: 15 mg/m3<br>TWA: 1 mg/m3 |

*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*

**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** None required for consumer use. If splashes are likely to occur: 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.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical and Chemical Properties**

| | | | |
|---|---|---|---|
| **Physical State** | Solid | | |
| **Appearance** | Cuboid battery | **Odor** | Odorless |
| **Color** | Gray black | **Odor Threshold** | No information available |

| **Property** | **Values** | **Remarks Method** |
|---|---|---|
| **pH** | No data available | None known |
| **Melting / freezing point** | 327.4℃ | Lead |
| **Boiling point / boiling range** | 1740℃ | Lead |
| **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** | No data available | |
| **Upper flammability limit** | | |
| **Lower flammability limit** | No data available | |
| **Vapor pressure** | No data available | Electrolyte |
| **Vapor density** | <0.3mmHg @25℃ | Electrolyte |
| **Specific Gravity** | 3.4 | Electrolyte |
| **Water Solubility** | 1.170-1.40 | Electrolyte |
| **Solubility in other solvents** | 100% | 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 | |
| **Oxidizing Properties** | No data available | |
| | No data available | |

**Other Information**

| | |
|---|---|
| **Softening Point** | |
| **VOC Content (%)** | No data available |
| **Particle Size** | No data available |
| **Particle Size Distribution** | No data available |

## 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.
Avoid shorting circuit or sparks near battery. Avoid prolonged over-charging.
Use only approved charging methods. Do not charge in gas tight containers. Keep battery away from strong oxidizers, sparks, open flames.

**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.

**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. Expected to be an irritant based on components.

**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 |
|---|---|---|---|
| Sulfuric acid<br>7664-93-9 | = 2140 mg/kg ( Rat ) | - | = 510 mg/m3 ( Rat ) 2 h |

**Information on toxicological effects**

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

**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** The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Chemical Name | ACGIH | IARC | NTP | OSHA |
|---|---|---|---|---|
| Lead<br>7439-92-1 | A3 | Group 2A | Reasonably Anticipated | X |
| Lead dioxide<br>1309-60-0 | A3 | Group 2A | Reasonably Anticipated | X |
| Sulfuric acid<br>7664-93-9 | A3 | Group 1 | Known | X |

**ACGIH (American Conference of Governmental Industrial Hygienists)**
*A2 - Suspected Human Carcinogen*
*A3 - Animal Carcinogen*
**IARC (International Agency for Research on Cancer)**
*Group 1 - Carcinogenic to Humans*
*Group 2A - Probably Carcinogenic to Humans*
**NTP (National Toxicology Program)**
*Known - Known Carcinogen*
*Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen*
**OSHA (Occupational Safety and Health Administration of the US Department of Labor)**
*X – Present*

| | |
|---|---|
| **Reproductive Toxicity** | Product is or contains a chemical which is a known or suspected reproductive hazard. Contains a known or suspected reproductive toxin. |
| **Developmental Toxicity** | Contains ingredients that have suspected developmental hazards. |
| **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. Contains a known or suspected carcinogen. Contains a known or suspected reproductive toxin. Possible risk of irreversible effects. Avoid repeated exposure. Prolonged exposure may cause chronic effects. May cause adverse effects on the bone marrow and blood-forming system. Lead compounds may be absorbed by ingestion, by inhalation and through the skin. Lead may damage kidney function, the blood forming system and the reproductive system. |
| **Target Organ Effects** | Respiratory system. Eyes. Skin. Gastrointestinal tract (GI). Reproductive System. Blood. Central Nervous System (CNS). Gingival Tissue. Kidney. Teeth. Cardiovascular system. Hematopoietic system. Immune system. May damage the unborn child. |
| **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)**
500.00 mg/kg
**ATEmix (inhalation-gas)**
5,625.00 ppm (4 hr)
**ATEmix (inhalation-dust/mist)**
1.10 mg/l
**ATEmix (inhalation-vapor)**
14.00 ATEmix

## 12. ECOLOGICAL INFORMATION

This product contains a chemical which is listed as a severe marine pollutant according to DOT

**Ecotoxicity**
Very toxic to aquatic life with long lasting effects.

| Chemical Name | Toxicity to Algae | Toxicity to Fish | Toxicity to Microorganisms | Daphnia Magna (Water Flea) |
|---|---|---|---|---|
| Lead<br>7439-92-1 | | 96h LC50: = 0.44 mg/L (Cyprinus carpio) 96h LC50:= 1.17 mg/L (Oncorhynchus mykiss) 96h LC50: = 1.32 mg/L (Oncorhynchus mykiss) | | 48h EC50: = 600 µg/L |
| Sulfuric acid<br>7664-93-9 | | 96h LC50: > 500 mg/L (Brachydanio rerio) | | 24h EC50: = 29 mg/L |

**Persistence and Degradability**
No information available.

**Bioaccumulation**
No information available.

**Other adverse effects**
No information available.

## 13. DISPOSAL CONSIDERATIONS

**Waste treatment methods**

**Disposal Methods** This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261).

**Contaminated Packaging** Dispose of contents/containers in accordance with local regulations.

**US EPA Waste Number** D002 D004 D008

| Chemical Name | RCRA | RCRA - Basis for Listing | RCRA - D Series Wastes | RCRA - U Series Wastes |
|---|---|---|---|---|
| Lead<br>7439-92-1 | (hazardous constituent – no waste number) | Included in waste streams:<br>F035, F037, F038, F039, K002, K003, K005, K046, K048, K049, K051, K052, K061, K062, K064, K065, K066, K069, K086, K100, K176 | = 5.0 mg/L regulatory level | |

**California Hazardous Waste Codes** 792

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

| Chemical Name | California Hazardous Waste |
|---|---|
| Lead<br>7439-92-1 | Toxic |
| Lead dioxide<br>1309-60-0 | Toxic |
| Sulfuric acid<br>7664-93-9 | Toxic<br>Corrosive |

## 14. TRANSPORT INFORMATION

**Transportation Information**
Since multipower batteries meet the requirement of “Non-Spillable” and Exempt from Hazardous Goods regulations, they can be transported by Air, Sea, or Land transportation. All batteries are labeled as “Non-Spillable” individually. Therefore, multipower batteries are not suitable for NA or UN number

**U.S. DOT :**
DOT-Our Non-spillable batteries are **Not subject to DG regulations**, since they meet the requirements of 49 CFR 173.159(d). They do not have an assigned UN number nor do they require additional DOT hazard labeling.

**EU- ADR/RID**: New and spent batteries are exempt from all ADR/RID (Special Provision 598)

**IATA / ICAO :**

IATA/ICAO- **multipower** batteries are exempt from **DG regulations**, and classified as a “Non-Spillable battery”. Our Non-spillable batteries are **Not subject to DG regulations**, since they meet the requirements of Packing Instructions **872** of Special Provision A67.
The **multipower** batteries are securely packaged, protected from short circuits and labeled “Non-Spillable”. They are good for transportation on either passenger aircraft or cargo aircraft.

**For all modes of transportation, each battery and outer package must be labeled :**

**“Non-Spillable” or “Non-Spillable Battery”. This label must be visible during transportation.**

**IMDG:**

**multipower batteries are Non-spillable batteries. They meet the requirements of Special**

**Provision 238 and are not subject to the provisions of the IMDG code.**

## 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 % |
|---|---|---|---|
| Lead - 7439-92-1 | 7439-92-1 | 45 - 60 | 0.1 |
| Lead dioxide - 1309-60-0 | 1309-60-0 | 15 – 25 | 0.1 |
| Sulfuric acid - 7664-93-9 | 7664-93-9 | 15 - 20 | 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 |
|---|---|---|---|---|
| Lead - 7439-92-1 | | x | x | |
| Lead dioxide - 1309-60-0 | | x | | |
| Sulfuric acid - 7664-93-9 | 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 | Extremely Hazardous Substances RQs | RQ |
|---|---|---|---|
| Lead<br>7439-92-1 | 10 lb | | RQ 10 lb final RQ<br>RQ 4.54 kg final RQ |
| Sulfuric acid<br>7664-93-9 | 1000 lb | 1000 lb | RQ 1000 lb final RQ<br>RQ 454 kg final RQ |

**US State Regulations**

**California Proposition 65**
This product contains the following Proposition 65 chemicals.

| Chemical name | California Proposition 65 |
|---|---|
| Lead - 7439-92-1 | Carcinogen<br>Developmental<br>Female Reproductive |
| Lead dioxide - 1309-60-0 | Carcinogen<br>Developmental<br>Female Reproductive<br>Male Reproductive |
| Sulfuric acid - 7664-93-9 | Carcinogen |
| Arsenic - 7440-38-2 | Carcinogen |

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

| Chemical name | New Jersey | Massachusetts | Pennsylvania | Rhode Island | Illinois |
|---|---|---|---|---|---|
| Lead<br>7439-92-1 | X | X | X | X | X |

| | | | | | |
|---|---|---|---|---|---|
| Lead dioxide<br>1309-60-0 | **X** | **X** | **X** | **X** | **X** |
| Sulfuric acid<br>7664-93-9 | **X** | **X** | **X** | **X** | **X** |
| Tin<br>7440-31-5 | **X** | **X** | **X** | | |
| Calcium<br>7440-70-2 | **X** | **X** | **X** | | |

**International Regulations**

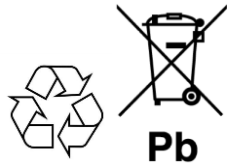
**Mexico**
**National occupational exposure limits**

| Chemical name | Carcinogen Status | Exposure Limits |
|---|---|---|
| Lead<br>7439-92-1 ( 45 - 60 ) | A3 | Mexico: TWA= 0.15 mg/m3 |
| Lead dioxide<br>1309-60-0 ( 15 - 25 ) | A3 | Mexico: TWA 0.15 mg/m3 |
| Sulfuric acid<br>7664-93-9 ( 15 - 20 ) | A2 | Mexico: TWA 1 mg/m3 |

*Mexico - Occupational Exposure Limits - Carcinogens*
*A2 - Suspected Human Carcinogen*
*A3 - Confirmed Animal Carcinogen*

**Canada**
**WHMIS Hazard Class**
Non-controlled

**EU Regulation:**
In accordance with EU2006/66/EC Battery Directive, VRLA batteries should present crossed-out wheeled bin symbol of lead together with the ISO recycling symbol. Does not contain any mercury,Hg, (<0.0005%) or cadmium, Cd, (<0.002%).




## 16. OTHER INFORMATION

| | | | | |
|---|---|---|---|---|
| **NFPA** | **Health Hazards** 3 | **Flammability** 0 | **Instability** 0 | **Physical and Chemical Hazards** - |
| **HMIS** | **Health Hazards** 0 | **Flammability** 0 | **Physical Hazard** 0 | **Personal Protection** X |

**Prepared By**
**Issuing Date**
**Revision Date**
**Revision Note**

**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 guide 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**