

# SAFETY DATA SHEET

Revision Date: 02-Jan-2025

**Revision Number: 6** 

### 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: None

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

Supplier Name: Kung Long Batteries Industrial Co., Ltd. Supplier Address: No. 6, Tzu-Li 3 Rd. Nantou City 54067, Taiwan

Manufactory Address:

Taiwan: No. 6, Tzu-Li 3 Rd. Nantou City 54067, Taiwan
 Vietnam: 1.) 40-Ba Chanh Thau-Kp2-TT. Ben Luc-Huyen Ben Luc- Tinh Long An Vietnam
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## 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** 

### Valve Regulated Lead-Acid Battery

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### 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

First aid measures

 $\ensuremath{\Re}\xspace \mathsf{PBB}$  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	<0.6%	*
Expoxide-resin	79-94-7	<1%	*
ABS resins	9003-56-9	5 ~ 10%	*
glass fiber	65997-17-3	1 ~ 3%	*

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

## 4. 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 att	ention 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.

<u>Unsuitable extinguishing media</u> 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 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 a	ind 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
Procentions for safe handling	
Frecautions for sale fianding	
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.
Handling Conditions for safe storage, including a	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.
Handling Conditions for safe storage, including a Storage	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. <b>Iny incompatibilities</b> 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.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### **Control parameters**

### **Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Lead	TWA: 0.05 mg/m3	TWA: 50 µg/m3 TWA: 50 µg/m3	IDLH: 100 mg/m3
7439-92-1		Pb	TWA: 0.050 mg/m3
		Action Level: 30 µg/m3 Poison,	-
		See 29 CFR 1910.1025 Action	
		Level: 30 µg/m3 Pb Poison, See	
		29 CFR 1910.1025	
Lead dioxide	TWA: 0.05 mg/m3 Pb	TWA: 50 µg/m3 Pb	IDLH: 100 mg/m3 Pb
1309-60-0	-	Action Level: 30 µg/m3 Pb	TWA: 0.050 mg/m3 Pb
		Poison, See 29 CFR 1910.1025	-
Sulfuric acid	TWA: 0.2 mg/m3 thoracic	TWA: 1 mg/m3	IDLH: 15 mg/m3
7664-93-9	fraction	(vacated) TWA.1 mg/m3	TWA-1 mg/m3

 7664-93-9
 fraction
 (vacated) TWA: 1 mg/m3
 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, suc	th 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	<u>Values</u>	Remarks Method	
pH	No data available	None known	
Melting / freezing point	<b>327.4</b> ℃	Lead	
Boiling point / boiling range	<b>1740</b> ℃	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			
Upper flammability limit	No data available		
Lower flammability limit	No data available		
Vapor pressure	<b>&lt;0.3mmHg @25</b> ℃	Electrolyte	
Vapor density	3.4	Electrolyte	
Specific Gravity	1.170-1.40	Electrolyte	
Water Solubility	100%	Electrolyte	
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		
Oxidizing Properties	No data available		
Other Information			
Softening Point			

Softening Point VOC Content (%) Particle Size Particle Size Distribution

### **10. STABILITY AND REACTIVITY**

No data available

No data available

No data available

### **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

Valve Regulated Lead-Acid Battery	Revision Date: 02-Jan-2025
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	= 2140 mg/kg ( Rat )	-	= 510 mg/m3 ( Rat ) 2 h
7664-93-9			

### Information on toxicological effects

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

Symptoms

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

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

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)

Valve Regulated Lead-Acid Battery	Revision Date: 02-Jan-2025
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 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 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).

Dispose of contents/containers in accordance with local regulations.

#### **Contaminated Packaging**

US EPA Waste Number D002 D004 D008

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

### 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 7439-92-1	Тохіс
Lead dioxide 1309-60-0	Тохіс
Sulfuric acid 7664-93-9	Toxic Corrosive

### **14. TRANSPORT INFORMATION**

### **Transportation Information**

Since LONG 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, LONG batteries are not suitable for NA or UN number.

### <u>U.S. DOT</u> :

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)

### <u>IATA / ICAO</u> :

IATA/ICAO- LONG 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 **LONG** 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:

LONG 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**

TSCA DSL Complies 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 7439-92-1	10 lb		RQ 10 lb final RQ RQ 4.54 kg final RQ
Sulfuric acid 7664-93-9	1000 lb	1000 lb	RQ 1000 lb final RQ RQ 454 kg final RQ

### **US State Regulations**

### **California Proposition 65**

This product contains the following Proposition 65 chemicals.

Chemical name	California Proposition 65
	Carcinogen
Lead - 7439-92-1	Developmental
	Female Reproductive
	Carcinogen
Lead dioxide - 1309-60-0	Developmental
	Female Reproductive
	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 7439-92-1	х	Х	х	x	х
Lead dioxide 1309-60-0	х	Х	x	x	х
Sulfuric acid 7664-93-9	х	Х	х	x	х
Tin 7440-31-5	х	Х	х		
Calcium 7440-70-2	х	x	х		

### **International Regulations**

### Mexico

### National occupational exposure limits

Chemical name	Carcinogen Status	Exposure Limits
Lead 7439-92-1(45 - 60)	A3	Mexico: TWA= 0.15 mg/m3
Lead dioxide 1309-60-0(15 - 25)	A3	Mexico: TWA 0.15 mg/m3
Sulfuric acid 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%).



NFPA	Health Hazards 3	Flammability 0	Instability 0	Physical and Chemical Hazards -
HMIS	Health Hazards 0	Flammability 0	Physical Hazard 0	Personal Protection
Prepared By Issuing Date Revision Date Revision Note	Ku 02 02 No	ung Long Batteries Indu 2-Jan-2025 2-Jan-2025 5 information available5	istrial Co., Ltd.	

### 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