Material Safety Data Sheet

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1. PRODUCT AND COMPANY IDENTIFICATION

Product Name **Sealed Lead Acid Battery**

Recommended Use Lead acid battery.

Supplier Address
Zhongshan Long Way Battery Manufacturing Co., Ltd
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CN
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Company Emergency Phone Number 0595-23288889

2. HAZARDS IDENTIFICATION

DANGER!

Emergency Overview

In case of rupture
Corrosive
The product causes burns of eyes, skin and mucous membranes
Harmful by inhalation, in contact with skin and if swallowed
May cause central nervous system depression
May cause adverse kidney effects
Contains a known or suspected reproductive toxin
Contains a known or suspected carcinogen
Warning! Contains lead
NOTE: Under normal conditions of battery use, internal components will not present a health hazard. The following information is provided for battery acid and lead exposure that may occur during battery production or container breakage or under extreme heat conditions such as fire

Appearance Black **Physical State** Solid, Solid containing liquid. **Odor** Odorless

OSHA Regulatory Status This product is an article which contains a chemical substance. Safety information is given for exposure to the article as sold, but considers exposure to the chemical if user has direct eye and skin contact with the chemical.

Potential Health Effects
Principle Routes of Exposure Eye contact. Skin contact.

Acute Toxicity
Eyes Risk of serious damage to eyes. Causes burns. Corrosive to the eyes and may cause severe damage including blindness.
Skin Causes burns.
Inhalation Harmful by inhalation Corrosive to respiratory system. 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.

Ingestion	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Causes burns 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.
Chronic Effects	Avoid repeated exposure Possible risk 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 May cause adverse effects on the bone marrow and blood-forming system Contains a known or suspected carcinogen Contains a known or suspected reproductive toxin 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.
Main Symptoms	Severe exposures can lead to shock, circulatory collapse, and death Lead poisoning is characterized by a metallic taste in the mouth, loss of appetite indigestion, nausea, vomiting, constipation, sleep disturbances and overall weakness
Aggravated Medical Conditions	Central nervous system. Gastrointestinal tract. Pre-existing eye disorders. Blood disorders. Kidney disorders. Overexposure may cause female and male reproductive disorder(s). Skin disorders. Respiratory disorders. Reproductive toxicity. Gingival Tissue Teeth
Interactions with Other Chemicals	Use of alcoholic beverages may enhance toxic effects.
Environmental Hazard	See Section 12 for additional Ecological Information. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

3. COMPOSITION/INFORMATION ON INGREDIENTS

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4. FIRST AID MEASURES

General Advice	In case of rupture. Call 911 or emergency medical service. Remove and isolate contaminated clothing and shoes.
Eye Contact	Immediate medical attention is required. In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
Skin Contact	For minor skin contact, avoid spreading material on unaffected skin. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Call a physician immediately.
Inhalation	Move victim to fresh air. Give artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult. Call a physician or poison control center immediately.
Ingestion	Immediate medical attention is required. Call a physician or poison control center immediately. Do NOT induce vomiting. Drink plenty of water. Never give anything by mouth to an unconscious person. Remove from exposure, lie down.
Notes to Physician	Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed. Keep victim warm and quiet.
Protection of First-aiders	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. 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.

5. FIRE-FIGHTING MEASURES

Flammable Properties	Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes. Contact with metals may evolve flammable hydrogen gas. Containers may explode when heated.
Flash Point	Not applicable
Suitable Extinguishing Media	Dry chemical, CO2, alcohol-resistant foam or water spray. Move containers from fire area if you can do it without risk. Dike fire control water for later disposal; do not scatter the material.
Uniform Fire Code	• Corrosive: Acid-Liquid
Hazardous Combustion Products	Carbon monoxide. Carbon dioxide (CO_2).
Explosion Data	
Sensitivity to Mechanical Impact	No.
Sensitivity to Static Discharge	No.
Specific Hazards Arising from the Chemical	Some are oxidizers and may ignite combustibles (wood, paper, oil, clothing, etc.). Thermal decomposition can lead to release of toxic and corrosive gases/vapors.
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.

NFPA **Health Hazard** 3 **Flammability** 0 **Stability** 1 **Physical and Chemical Hazards** -

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Stop leak if you can do it without risk.
Environmental Precautions	Do not allow to enter into soil/subsoil. Should not be released into the environment. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.
Methods for Containment	Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
Methods for Cleaning Up	Use personal protective equipment as required. Dam up. Cover liquid spill with sand, earth or other noncombustible absorbent material. Take up mechanically, placing in appropriate containers for disposal. Clean contaminated surface thoroughly. After cleaning, flush away traces with water. Prevent product and washings from entering drains, sewers or surface water due to high toxicity to aquatic organisms.
Other Information	DO NOT GET WATER INSIDE CONTAINERS.

7. HANDLING AND STORAGE

Handling	Wear personal protective equipment. Do not puncture or incinerate cans. In case of rupture. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid contact with skin, eyes or clothing. Do not breathe vapors or spray mist.
Storage	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labeled containers. Keep out of the reach of children.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

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).

Engineering Measures Showers
Eyewash stations
Ventilation systems

Personal Protective Equipment

Eye/Face Protection If splashes are likely to occur: Wear safety glasses with side shields (or goggles) Face protection shield

Skin and Body Protection Impervious clothing. Impervious gloves. Boots. Chemical resistant apron.

Respiratory Protection None under normal use conditions If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations

Hygiene Measures When using do not eat, drink or smoke. Keep away from food, drink and animal feeding stuffs. Wear suitable gloves and eye/face protection. Avoid contact with skin, eyes or clothing. Remove and wash contaminated clothing before re-use. Regular cleaning of equipment, work area and clothing is recommended. Contaminated work clothing should not be allowed out of the workplace. For environmental protection, remove and wash all contaminated protective equipment before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Black.	**Odor**	Odorless.
Odor Threshold	No information available	**Physical State**	Solid Solid containing liquid.
pH	No information available		
Flash Point	Not applicable	**Autoignition Temperature**	No information available
Decomposition Temperature	No information available	**Boiling point / boiling range**	No information available
Melting Point/Range	No information available		
		Flammability Limits in Air	No information available
Explosion Limits	No information available		
Water Solubility	Immiscible in water	**Solubility**	No information available.
Evaporation Rate	No information available	**Vapor Pressure**	No data available
Vapor Density	No data available	**Partition Coefficient: n-octanol/water**	100

10. STABILITY AND REACTIVITY

Stability Stable under recommended storage conditions

Incompatible Products Incompatible with strong acids and bases Incompatible with oxidizing agents

Conditions to Avoid Exposure to air or moisture over prolonged periods Keep from any possible contact with water

Hazardous Decomposition Products Thermal decomposition can lead to release of irritating gases and vapors.

Hazardous Polymerization Hazardous polymerization does not occur

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Product Information Harmful by inhalation, in contact with skin and if swallowed

Chronic Toxicity

Chronic Toxicity Avoid repeated exposure Possible risk 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 May cause adverse effects on the bone marrow and blood-forming system Contains a known or suspected carcinogen Contains a known or suspected reproductive toxin

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.

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

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

Developmental Toxicity Contains ingredients that have suspected developmental hazards

Target Organ Effects Skin Eyes Respiratory system Gastrointestinal tract (GI) Blood Kidney Teeth Gingival Tissue Reproductive system. May damage the unborn child Central Nervous System (CNS)

12. ECOLOGICAL INFORMATION

Ecotoxicity
Harmful to aquatic organisms. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

13. DISPOSAL CONSIDERATIONS

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

Contaminated Packaging Do not reuse empty containers

US EPA Waste Number D008
D002

California Hazardous Waste Codes 141

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

14. TRANSPORT INFORMATION

DOT	NOT REGULATED
TDG	Not regulated
MEX	Not regulated
ICAO	Not regulated
IATA	Not regulated
IMDG/IMO	Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA	Does not comply
DSL	Not determined

U.S. 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

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
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)

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)
This product contains the following substances which are listed hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act:

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)

US State Regulations

California Proposition 65
This product contains the following Proposition 65 chemicals:

Chemical Name	CAS-No	California Prop. 65
Lead	7439-92-1	Carcinogen Developmental Female Reproductive Male Reproductive
Lead peroxide	1309-60-0	Carcinogen Developmental Female Reproductive Male Reproductive
Sulfuric acid	7664-93-9	Carcinogen

U.S. State Right-to-Know Regulations

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Lead	X	X	X	X	X
Lead peroxide	X	X	X	X	X
Sulfuric acid	X	X	X	X	X

International Regulations

Mexico - Grade Serious risk, Grade 3

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
D2A - Very toxic materials
E - Corrosive material

Legend
NPRI - National Pollutant Release Inventory

16. OTHER INFORMATION

Revision Date 27-Sep-2011

Revision Note No information available.

General 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