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NO.2621100018

# SAFETY DATASHEET

Product Name: SEALED LEAD ACID BATTERY

Effective Date: 2022-01-17

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For and on behalf of  
UNIVERSAL POWER TECHNOLOGY COMPANY LIMITED  
宇宙能源科技有限公司

Authorized Signature(s)



Shanghai Institute of Chemical Industry Testing Co., Ltd.



# UNIVERSAL POWER TECHNOLOGY COMPANY LIMITED

## SAFETY DATA SHEET

### SEALED LEAD ACID BATTERY

#### SECTION1 PRODUCT AND COMPANY IDENTIFICATION

Product name: SEALED LEAD ACID BATTERY  
Company: UNIVERSAL POWER TECHNOLOGY COMPANY LIMITED  
Address: Room 1407, Dreamland Times Building, Heping Road east, Long Hua Town, Bao' An District, Shenzhen, 518109, P.R.China  
Email: yangmin@universal-power.com.cn  
Fax: 86-755-83722565  
Emergency Phone: 86-755-28094189  
Recommend use of the chemical and restrictions on use: /

SDS Number: 2621100018  
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#### SECTION2 HAZARDS IDENTIFICATION

The product is outside of the scope of GHS system.

##### Main Hazards:

##### Fire or Explosion Hazard:

May decompose when heated and generate corrosive and/or toxic fumes.

##### Health Hazards:

The internal battery materials are corrosive to the eyes, skin, mucous membranes and upper respiratory tract. Cause burns. Avoid directly contact with the internal battery. Prevent inhalation.

##### Environmental Hazards:

The internal battery materials may be harmful to the environment, and attention should be paid to water bodies.

#### SECTION3 INFORMATION ON INGREDIENTS

Product name: SEALED LEAD ACID BATTERY

Ingredient	Concentration	CAS No.	EC No.
Lead	45-55%	7439-92-1	231-100-4

Sulfuric acid	19-25%	7664-93-9	231-639-5
Lead oxide	19-23%	1309-60-0	215-174-5

#### SECTION4 FIRST-AID MEASURES

##### Skin Exposure:

If the internal battery's materials of an opened battery cell come into contact with the skin, remove the contaminated clothing and footwear, immediately flush with plenty of water for at least 20 minutes. Call a physician.

##### Eye Exposure:

In case of the internal battery's materials in contact with eyes, lift your eyelids immediately and rinse them with running water for more than 20 minutes. Call a physician.

##### Inhalation Exposure:

If inhaled the internal battery's materials, immediately remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Call a physician.

##### Oral Exposure:

If swallowed the internal battery's materials, do not induce vomiting. If the staff is awake, drink enough warm water or milk. Call a physician.

##### Most Important Symptoms/Effects, Acute and Delayed:

No data available.

##### Indication of Immediate Medical Attention and Special Treatment Needed, if Necessary:

No data available.

#### SECTION5 FIRE FIGHTING MEASURES

##### Suitable Extinguishing Media:

Suitable: Dry chemical, Sandy soil, Carbon dioxide or appropriate foam.

##### Specific Hazards Arising from the Chemical:

May decompose upon combustion to generate irritating, corrosive or toxic fumes when heated.

##### Special Protective Action for Fire-fighters:

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Fire-extinguishing work is done from the windward. Uninvolved persons should evacuate to a safe place.

#### SECTION6 ACCIDENTAL RELEASE MEASURES

##### Personal Precautions, Protective Equipment and Emergency Procedures:

Use personal protective equipment. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Entry to noninvolved personnel should be controlled around the leakage area by roping off. Remove all sources of ignition.

##### Environmental Precautions:

Avoid leakage to get into the earth, ditches or waters. Avoid directly release the cleaning waste water into the environment.

##### Methods and Materials for Containment and Cleaning up:

In case of internal materials leak, use dry soil, dry sand or other non-combustible materials to absorb and cover the leakage. Sweep up with spade and transfer to a dry, clean, lidded container for disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.



## SECTION7 HANDLING AND STORAGE

### Precautions for Safe Handling:

Operators should be trained and strictly abide by operating procedures. Wear chemical-resistant protective clothing, chemical-resistant protective gloves and a filter gas mask. Keep away from ignition sources, heat and flame. No smoking at working site. Handling is performed in a well ventilated place. Avoid disassembling the battery at will, reversing battery polarity within the battery assembly and overcharging. Such batteries must be packed in inner packaging in such a manner as to effectively prevent short circuits and to prevent movement which could lead to short circuits. In case of leakage of the material in the battery, avoid directly contact with eyes and skin. Avoid inhalation. Incompatibilities: Strong oxidizing agents, Combustible materials and Corrosives.

### Conditions for Safe Storage, Including Any Incompatibilities:

Store in a cool, dry, and well-ventilated area. Keep away from ignition sources, heat and flame. Incompatibilities: Strong oxidizing agents, Combustible materials and Corrosives. Such batteries must be packed in inner packaging in such a manner as to effectively prevent short circuits and to prevent movement which could lead to short circuits. Storage place should be equipped with appropriate varieties and quantities of fire fighting equipment and leakage emergency treatment equipment.

## SECTION8 EXPOSURE CONTROL/PPE

### Control Parameters:

GBZ 2.1-2019 Occupational Exposure Limits for Hazardous Agents in the Workplace - Part 1: Chemical Hazardous Agents:

Lead, Lead oxide: Lead and inorganic compounds (calculated as Pb) (Remarks: G2B (lead), G2A (lead inorganic compounds)) Lead dust: PC-TWA 0.05mg/m<sup>3</sup> Lead fume: PC-TWA 0.03mg/m<sup>3</sup>

Sulfuric acid and sulfur trioxide: PC-TWA 1 mg/m<sup>3</sup> PC-STEL 2 mg/m<sup>3</sup>

ACGIH:

Sulfuric acid: TLV-STEL 3 mg/m<sup>3</sup> TLV-TWA 1 mg/m<sup>3</sup>

Lead oxide: TLV-TWA 0.05 (Pb) /m<sup>3</sup>

### Appropriate Engineering Controls:

Mechanical exhaust required. Safety shower and eye bath.

### Individual Protection Measures:

#### Eye/Face Protection:

Wear chemical safety glasses.

#### Skin Protection:

Hand Protection: Wear chemical-resistant protective gloves.

Body Protection: Wear chemical-resistant protective clothing.

#### Respiratory Protection:

Wear a filter gas mask when you may be exposed to electrolyte fumes.

#### Thermal Hazards:

No data available.

#### Other Protect:

No smoking, drinking and eating at working site. Wash thoroughly after handling.

## SECTION9 PHYSICAL/CHEMICAL PROPERTIES

Appearance: Black plastics cement shell

Odor: Odorless

pH Value: 1-2

Solubility: Partial soluble in water

Boiling Point,	No data available
Initial Boiling	
Point and Boiling	
Range:	
Melting	>300°C
Point/Freezing	
Point:	
Flash Point	No data available
(Closed Cup):	
Density/Relative	No data available
Density:	
Kinematic	No data available
Viscosity:	
Lower/Upper	No data available
Explosion	
Limit/Flammabili	
ty Limit:	
Vapour Pressure:	No data available
Relative Vapor	No data available
Density:	
Partition	No data available
Coefficient	
N-Octanol/Water(	
Log Value):	
Autoignition	No data available
Temperature:	
Decomposition	No data available
Temperature:	
Particle	No data available
Characteristics:	
Flammability	No data available
(Solid, Gas):	

## SECTION10 STABILITY AND REACTIVITY

### Reactivity:

No data available.

### Chemical Stability:

Stable under normal temperatures and pressures.

### Possibility of Hazardous Reactions:

No data available.

### Conditions to Avoid:

Avoid misoperation, exposure to heat and open flame. Avoid mechanical or electrical abuse and overcharge.  
Prevent short circuits. Prevent movement which could lead to short circuits.

### Incompatible Materials:

Strong oxidizing agents, Combustible materials and Corrosives.

### Hazardous Decomposition Products:

Metal oxides, sulfur oxides, sulfuric acid mist, etc.

## SECTION11 TOXICOLOGICAL INFORMATION

### Acute Toxicity:

No data available.

### Skin Corrosion/Irritation:

The electrolyte in the battery causes severe skin burns.

**Serious Eye Damage/Irritation:**

The electrolyte in the battery causes serious eye damage.

**Respiratory Sensitization:**

No data available.

**Skin Sensitization:**

No data available.

**Carcinogenicity:**

The International Agency on Cancer (IARC) has classified "strong inorganic acid mists containing sulfuric acid" as a category I carcinogen (inhalation), a substance that is carcinogenic to humans. Misuse of the product, such as overcharging, may result in the generation of sulfuric acid mist at high levels.

**Germ Cell Mutagenicity:**

No data available.

**Reproductive Toxicity:**

No data available.

**Specific Target Organ Toxicity -Single Exposure:**

No data available.

**Specific Target Organ Toxicity -Repeated Exposure:**

No data available.

**Aspiration Hazard:**

No data available.

**SECTION12 ECOLOGICAL INFORMATION****Toxicity:**

No data available.

**Persistence and Degradability:**

No data available.

**Bioaccumulative Potential:**

No data available.

**Mobility in Soil:**

No data available.

**Other Adverse Effects:**

No data available.

**SECTION13 DISPOSAL CONSIDERATION****Disposal Methods:**

The discarded battery is listed in hazardous waste in the "Catalogue of Hazardous Waste", Number: HW31, Category: Lead-containing Waste.

The disposal of discarded battery shall comply with the requirements of relevant laws, regulations, policies and standards such as the "Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Waste" and "Technical Policy for the Prevention and Control of Waste Battery Pollution". Contact a licensed professional waste disposal service to dispose of wastes. Used battery being transported for disposal or reclamation should be carefully checked prior to shipment to ensure the integrity of each battery and its suitability for transport.

**SECTION14 TRANSPORT INFORMATION**

The battery has passed the vibration test, pressure differential test and leakage test at 55°C according to Recommendations on the TRANSPORT OF DANGEROUS GOODS Model Regulations (21") SPECIAL PROVISION 238.



- RID/ADR (2019 Edition): The battery is not restricted to RID/ADR according to special provision 238.
- IATA DGR (62<sup>nd</sup> Edition): The battery is not restricted to IATA DGR according to special provision A67.
- IMO IMDG CODE (2018 Edition): The battery is not restricted to IMO IMDG CODE according to special provision 238.

## SECTION15 REGULATORY INFORMATION

### Domestic Regulations:

#### Regulations Concerning Road Transportation of Dangerous Goods (JT/T 617-2018) :

The battery has passed the vibration test, pressure differential test and leakage test at 55°C according to Recommendations on the TRANSPORT OF DANGEROUS GOODS Model Regulations (21<sup>st</sup>) SPECIAL PROVISION 238. The battery is not restricted to JT/T 617-2018 according to special provision 238.

#### List of Dangerous Goods (GB 12268-2012):

The battery has passed the vibration test, pressure differential test and leakage test at 55°C according to Recommendations on the TRANSPORT OF DANGEROUS GOODS Model Regulations (21<sup>st</sup>) SPECIAL PROVISION 238. The battery is not restricted to GB 12268-2012 according to special provision 238.

#### List of Dangerous Goods by Rail (2009 Edition):

Number:81530 Product name: battery [wet, with acid, storage].

### International Regulations:

#### Directive 2006/66/EC and 2013/56/EU:

The label, disposal and recycling of the battery shall meet the requirements of EU Directive 2006/66/EC and 2013/56/EU.

## SECTION16 OTHER INFORMATION

### Preparation Date:

2022-01-17

### Preparation Department:

Shanghai Research Institute of Chemical Industry Testing Co., Ltd.  
Tel (Fax): +86-21-52815377/31765555

### Revision:

0

### Abbreviations and Acronyms:

CAS: Chemical Abstracts Service EC: European Commission ACGIH: American Conference of Governmental Industrial Hygienists PC-TWA: Permissible concentration-time weighted average PC-STEL: Permissible concentration-short term exposure limit TLV-STEL: Threshold limit value-short term exposure limit TLV-TWA: Threshold limit value-time weighted average G2B: Possibly carcinogenic to humans G2A: Probably carcinogenic to humans ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road RID: Regulations concerning the International Carriage of Dangerous Goods by Rail IMO IMDG CODE: International Maritime Organization International Maritime Code for Dangerous Goods IATA DGR: International Air Transport Association Dangerous Goods Regulations EU: European Union

### Other Information:

This SDS is compiled based on the information such as ingredients provided by the applicant and our current knowledge. This SDS shall be used only as a guide. The users of this SDS must make independent judgments on the correctness and completeness and then decide its suitability according to the actual situation. The users should take the relevant legal responsibilities for the consequences of use.

*For and on behalf of*  
UNIVERSAL POWER TECHNOLOGY COMPANY LIMITED  
宇宙能源科技有限公司

.....  
*Authorized Signature(s)*

