



SHENZHEN XYC ELECTRONIC CO., LTD.

## MATERIAL SAFETY DATA SHEET

### Valve-Regulated Sealed Lead-Acid Battery

#### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**Product name:** Valve-Regulated Sealed Lead-Acid Battery

**Model:** 6V4.5AH, 12V0.8AH, 12V1.3AH, 12V2.3AH, 12V4.5AH, 12V5AH, 12V7AH, 12V100AH

**Company:** SHENZHEN XYC ELECTRONIC CO., LTD.

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**E-mail:** sales@xyc-battery.com **Emergency Phone:** +86-15976894615 **Fax:** +86-755-22143719

#### SECTION 2: HAZARDS IDENTIFICATION

**Hazards Identification:** 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 Regulation (17<sup>th</sup>) SPECIAL PROVISION 238.

It is not restricted to IATA DGR according to special provision A67 and is not restricted to IMDG CODE according to special provision 238.

**Emergency Overview:** The internal battery materials may cause severe irritation to eyes and skin. Causes burns.

#### SECTION 3: INFORMATION ON INGREDIENTS

**Product name:** Valve-Regulated Sealed Lead-Acid Battery

Components	%Wt.	TLV	LD50 Oral	LC50 Inhalation	CAS NO.
Lead (Pb, PbO <sub>2</sub> , PbSO <sub>4</sub> )	About 70%	0.050mg/m <sup>3</sup>	(500) mg/Kg	N/A	7439-92-1
Sulfuric Acid	About 20%	1 mg/m <sup>3</sup>	(2.14) mg/Kg	N/A	7664-93-9
Fiberglass Separator	About 5%	N/A	N/A	N/A	65997-17-3
Container (ABS or PP)	About 5%	N/A	N/A	N/A	25155-30-0

#### SECTION 4: FIRST-AID MEASURES

**Skin Exposure:** If the internal battery materials of an opened battery cell come into contact with the skin, immediately flush with plenty of water for at least 15 minutes. Seek immediate medical attention.

**Eye Exposure:** In case of contact the electrolyte contained inside the battery with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Seek immediate medical attention.

**Inhalation Exposure:** If potential for exposure to mist or dusts occurs, remove immediately to fresh air and seek medical attention.

**Oral Exposure:** If swallowed, do not induce vomiting. Seek immediate medical attention.

## SECTION 5: FIRE FIGHTING MEASURES

### **Extinguishing Media:**

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

### **Firefighting:**

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Specific hazards: Emit toxic fumes under fire conditions.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

If batteries show signs of leaking, avoid skin or eyes contact with the material leaking from the battery. Use chemical resistant rubber gloves and non-flammable absorbent materials for clean up. Mix with inert material (e.g. dry sand, vermiculite) and transfer to sealed container for disposal.

## SECTION 7: HANDLING AND STORAGE

### **Handling:**

Keep away from ignition sources, heat and flame. Such batteries must be packed in inner packages in such a manner as to effectively prevent short circuits and to prevent movement which could lead to short circuits. Avoid mechanical or electrical abuse and overcharge. More than a momentary short circuit will generally reduce the battery service life. Avoid reversing battery polarity within the battery assembly. In case of a battery unintentionally be crushed, acid resistant gloves must be used to handle all battery components. Avoid contact with eyes, skin. Avoid inhalation. No smoking at working site. Materials to Avoid: Strong oxidant, Combustible materials and Corrosives.

### **Storage:**

Store in a cool, well-ventilated area. Keep away from ignition sources, heat and flame. Such batteries must be packed in inner packages in such a manner as to effectively prevent short circuits and to prevent movement which could lead to short circuits. Materials to Avoid: Strong oxidant, Combustible materials and Corrosives.

## SECTION 8: EXPOSURE CONTROL/PPE

### **Engineering Controls:**

Use ventilation equipment if available. Safety shower and eye bath.

### **Personal Protective Equipment:**

**Respiratory:** Wear government approved air-purifying respirator if needed.

**Eye:** Chemical safety glasses.

**Clothing:** Wear appropriate protective clothing.

**Hand:** Wear acids resistant gloves.

### **Other Protect:**

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

## SECTION 9: PHYSICAL/CHEMICAL PROPERTIES

Appearance:	Black or gray plastics cement case (containing dielectric)
Odor:	Odorless
MP/MP Range:	>300°C
pH Value:	1~2
Solubility:	Partial soluble in water

## SECTION 10: STABILITY AND REACTIVITY

**Stability:** Stable under normal temperatures and pressures.

**Materials to Avoid:** Strong oxidant, Corrosives.

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

**Hazardous Polymerization:** Will not occur.

**Hazardous Decomposition Products:** Sulfur oxides, Sulfuric acid mist, Metal oxides.

## SECTION 11: TOXICOLOGICAL INFORMATION

**Toxicity Data:** Not available.

**Irritation Data:** The internal battery materials may cause severe irritation to eyes and skin. Causes burns.

**Carcinogenicity:** The International Agency on Cancer (IARC) has classified "strong inorganic acid mists containing sulfuric acid" as a category 1 carcinogen (inhalation), a substance that is carcinogenic to humans. This classification does not apply to the sulfuric acid contained within the battery. Misuse of the product, such as overcharging, may result in the generation of sulfuric acid mist at high levels.

## SECTION 12: ECOLOGICAL INFORMATION

Lead and its compounds can result in a threat if released into the environment.

In most surface water and groundwater, lead forms compounds with anions such as hydroxides, carbonates, sulfates, and phosphates, and precipitates out of the water column. Lead may occur as sorbed ions or surface coatings on sediment mineral particles or may be carried in colloidal particles in surface water. Most lead is strongly retained in soil, resulting in little mobility. Lead may be immobilized by ion exchange with hydrous oxides or by chelation with humic or fulvic acids in the soil. Lead (dissolved phase) is bioaccumulated by plants and animals, both aquatic and terrestrial.

## SECTION 13: DISPOSAL CONSIDERATIONS

### Appropriate Method of Disposal of substance:

Lead-acid batteries are completely recyclable. Return whole scrap batteries to distributor, manufacturer or lead smelter for recycling. For neutralized spills, place residue in acid-resistant containers with sorbent material, sand or earth and dispose of in accordance with local, state and federal regulations for acid and lead compounds. Contact local and/or state environmental officials regarding disposal information. Used batteries 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.

## SECTION 14: TRANSPORT INFORMATION

**We hereby certify that XYZ Valve-Regulated Sealed Lead-Acid Batteries have passed the vibration test, pressure differential test and leakage test at 55°C according to Recommendations on the TRANSPORT OF DANGEROUS GOODS Model Regulations (17<sup>th</sup>) SPECIAL PROVISION 238.**

**IATA:**The battery is not restricted to IATA DGR according to IATA 59 Edition 2020.

**IMO:**The battery is not restricted to IMO IMDG Code according to special provision 238.

XYZ Batteries having met the related conditions are EXEMPT from hazardous goods regulations for the purpose of transportation by DOT, and IATA/ICAO, and therefore are unrestricted for transportation by any means.

## SECTION 15: REGULATORY INFORMATION

### Law Information

《Dangerous Goods Regulation》

《Recommendations on the Transport of Dangerous Goods Model Regulations》

《International Maritime Dangerous Goods》

《Technical Instructions for the Safe Transport of Dangerous Goods》

《Classification and code of dangerous goods》

《Occupational Safety and Health Act》 (OSHA)

《Toxic Substances Control Acts》 (TSCA)

《Consumer Product Safety Act》 (CPSA)

《Federal Environmental Pollution Control Act》 (FEPCA)

《The Oil Pollution Act》 (OPA)

《Superfund Amendments and Reauthorization Act Title III (302/311/312/313)》 (SARA)

《Resource Conservation and Recovery Act》 (RCRA)

《Safety Drinking Water Act》 (CWA)

《California Proposition 65》

《Code of Federal Regulations》 (CFR)

In accordance with all Federal, State and Local laws.

## SECTION 16: OTHER INFORMATION

### Department:

Shanghai Research Institute of Chemical Industry Testing / Shanghai Classification and Testing Centre of Dangerous Chemicals for State Administration of Work Safety

Tel (Fax): 8621-52815377/52800971/52807275/52811034/52569800

### Revision:

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### Other Information:

The above information is believed to be correct but does not purport to be all inclusive and shall be used only

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Date: Jan. 03, 2025

*For and on behalf of*  
**SHENZHEN XYC ELECTRONIC CO., LIMITED**  
**深圳市興宇昌電子有限公司**

  
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*Authorized Signature(s)*