

ZHEJIANG THE LIGHT OF HEAVEN-EARTH BATTERY MANUFACTURING CO., LTD.

MATERIAL SAFETY DATA SHEET

Valve Regulated Sealed Lead-crystal Battery 6-CNFJ-90 12V/90AH

SECTION1 PRODUCT AND COMPANY IDENTIFICATION

Product name: Valve Regulated Sealed Lead-crystal Battery 6-CNFJ-90 12V/90AH
 Company: ZHEJIANG THE LIGHT OF HEAVEN-EARTH BATTERY MANUFACTURING CO., LTD.
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 MSDS Number: 2610060014
 MSDS Date: 2010-06-28

SECTION2 INFORMATION ON INGREDIENTS

Product name: Valve Regulated Sealed Lead-crystal Battery 6-CNFJ-90 12V/90AH

Ingredient	Concentration (wt)	CAS No.	EC No.
Lead	44-50%	7439-92-1	231-100-4
Lead dioxide	25-30%	1309-60-0	215-174-5
Sulfuric Acid	1.75-3%	7664-93-9	231-639-5
Water	2.8-4.5%	7732-18-5	231-791-2
Silicon dioxide	1.4-3%	7631-86-9	231-545-4
Chemical additives	0.07-0.165%	/	/
ABS Shell	10-24%	9003-56-9	/

SECTION3 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 Regulations 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.

SECTION4 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 the internal materials, do not induce vomiting. Seek immediate medical attention.

SECTION5 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.

SECTION6 ACCIDENTAL RELEASE MEASURES

Methods for Cleaning up:

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.

SECTION7 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.

SECTION8 EXPLOSURE 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.

SECTION9 PHYSICAL/CHEMICAL PROPERTIES

Appearance: Black plastics cement shell

Odor: Odorless

Melting Point/°C: >300°C

pH Value: 1-2

Solubility: Partial soluble in water

SECTION10 STABILITY AND REACTIVITY**Stability:**

Stable under normal temperatures and pressures.

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.

Materials to Avoid:

Strong oxidant, Corrosives.

Hazardous Polymerization:

Will not occur.

Hazardous Decomposition Products:

Sulfur oxides, Sulfuric acid mist, Metal oxides.

SECTION11 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.

SECTION12 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 clays or by chelation with humic or fulvic acids in the soil. Lead (dissolved phase) is bioaccumulated by plants and animals, both aquatic and terrestrial.

SECTION13 DISPOSAL CONSIDERATION**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.

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 SPECIAL PROVISION 238.

IATA: Proper Shipping Name: / UN Number: / Hazard Class: / Packing Group: /

IMO: Proper Shipping Name: / UN Number: / Hazard Class: / Packing Group: /

SECTION15 REGULATORY INFORMATION**EU Additional Classification:**

S 36/37 Safety Statements: Wear suitable protective clothing and gloves.

SECTION16 OTHER INFORMATION

Date: 2010-06-28

Department: Shanghai Research Institute of Chemical Industry Testing Centre
Shanghai Classification and Testing Centre of Dangerous Chemicals for State Administration of Work Safety
Tel (Fax): 8621-52815377/52800971/52807275/52811034/52569800

Revision: 0

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检查
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Revision Date: 2010-06-28

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Approver: Zhangxiuqin



Shanghai Research Institute of Chemical Industry Testing Centre
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