

## **Material Safety Data Sheet**

Product Name: Sealed Maintenance Free Lead Acid Battery

Date: 2011-1-8

### **Section 1—Products & Company identification**

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

**Manufacturer's name : GUANGDONG ZHICHENG CHAMPION GROUP CO., LTD.**

**Manufacturer's address: TIANXIN INDUSTRIAL ZONE, TANGXIA TOWN, DONGGUAN CITY, GUANGDONG P.R.CHINA**

**TELEPHONE NUMBER:86-769-87927258**

**FAX NUMBER :86-769-87927259**

### **Emergency Overview:**

Exposure not expected for product under normal conditions of use. In its manufactured and supplied state, the product is non-hazardous. Keep away from flames during and immediately after charge. No significant health effects are associated with the product.

### **Section 2---Composition (Hazardous Components)**

Components	% by weight	TLV	LD50 Oral	LC50 Inhalation	LC% Contact
Lead ( Pb, PbO <sub>2</sub> , PbSo)	about 70%	N/A	(500)mg/kg	N/A	N/A
Sulfuric Acid	about 20%	1mg/m <sup>3</sup>	(2140)mg/kg	N/A	N/A
Fiberglass Separator	about 5%	N/A	N/A	N/A	N/A
Styro R478(Polystyrene)	about 5%	N/A	N/A	N/A	N/A

### **Section 3—Hazards Identification**

#### **Hazards Rating (HMIS System) for Sealed Lead Acid Battery**

Health	0
Flammability	0
Reactivity	0

#### **Potential Health Effects**

None expected for finished product under normal conditions of use.

#### **Fire and Explosion**

The sealed lead acid battery is not considered flammable, but it will burn if involved in a fire. Short circuit can also result in fire. Evacuate area. Self-contained apparatus must be worn to prevent possible inhalation of acid mists, smoke and decomposition products in a fire. Remove all ignition sources. Cool battery(s) to prevent rupture.

### **Section 4--- First-Aid Measures**

#### **Sulfuric Acid Precautions:**

Skin contact: Flush with water, see physician if contact area is larger or if blister form.

Eye contact: Call physician immediately and flush with water until physician arrives.

Ingestion: Call physician. If patient is conscious, flush mouth with water, have the patient drink milk of sodium bicarbonate solution.

DO NOT GIVE ANYTHING TO AN UNCONSCIOUS PERSON.

### **Section 5---Fire Fighting Measures**

#### **Extinguishing Media**

Multi purpose dry chemical or multi purpose CO2.

#### **Fire fighting procedures**

Evacuate area. Self-contained breathing apparatus must be worn to prevent possible inhalation of acid mists, smoke and decomposition products in a fire. Remove all ignition sources. Cool battery(s) to prevent rupture.

#### **Unusual fire and explosion hazards**

Hydrogen gas maybe produced and may explode if ignited. Remove all ignition sources. Ventilate area.

### **Section 6---Accidental Release Measures**

#### **Leakage or Spill**

If sulfuric acid is spilled from a battery—Neutralize the acid with sodium bicarbonate (baking soda), sodium carbon (soda ash), or calcium oxide (lime). Flush the area with water and discard to the sewage system.

Do not allow unneutralized acid into sewage system.

#### **Waste Disposal**

Neutralized acid may be flushed down the sewer. Spent batteries must be treated as hazardous waste and disposal of according to local state and federal regulations. A copy of this material safety data must be supplied to any scrap dealer or secondary lead smelter with battery.

### **Section 7---Handling and storage**

#### **Handling**

Do not carry battery by terminals. Do not drop battery, puncture or attempt to open battery case. Keep away from flame during

and immediately after charge. Avoid prolonged overcharges in confined areas.

### **Storage**

Store at ambient room temperature. Do not subject product to open flame or fire. Avoid conditions which could cause arcing between battery terminals.

### **Hygiene**

Wash hands thoroughly before eating or smoking after handling batteries.

## **Section 8---Exposure Controls/Personal Protection**

### **Lead**

The toxic effects of the lead are accumulative and slow to appear. It affects the kidneys, reproductive nerve system. The symptoms of lead over exposure are anemia, vomiting, headache, stomach pain (lead colic), dizziness, loss of appetite and muscle and joint pain. Exposure to lead from battery most often occurs during lead reclaim operations through the breathing or ingestion of lead dust and fumes.

Lead compounds exposure limits is 0.05 mg/m<sup>3</sup>

THIS DATA MUST BE PASSED TO ANY SCRAP DEALER OR SMELTER WHEN BATTERY SESOLD

### **Sulfuric Acid**

Sulfuric acid is a strong corrosive. Contact with acid can cause severe burns on the skin and eyes. Ingestion of sulfuric acid will cause GI tract burns. Acid can be released if the battery case is damaged or if the vents are tampered with.

Sulfuric acid Electrolyte exposure limits is 1.00 mg/m<sup>3</sup> OSHA

### **Fiberglass Separators**

Fiberglass is an irritant of the upper respiratory tract, skin and eyes. For exposure up to 10F/CC, MSA Comfoll with type H filter. Above 10F/CC up to 50F/CC use ultra twin type H filter. This product is not considered carcinogenic by NEB or OSHA.

### **Personal Protection**

Eye: Not necessary under normal conditions of use for finished product.

Skin: Not necessary under normal conditions of use for finished product.

Respiratory: Not necessary under normal conditions of use for finished product.

Ventilation: Not necessary under normal conditions of use for finished product.

Work Practices: Not necessary under normal conditions of use for finished product.

## **Section 9---Physical and Chemical Properties**

### **Physical Data**

Component	Density	Melting Points	Solubility (H <sub>2</sub> O)	Odor	Appearance
Lead	11.34	327.4° C (boiling)	None	None	Silver-gray material
Lead Sulfate	6.2	107° C (boiling)	40mg/1(15° C)	None	White powder
Lead Dioxide	9.4	290° C (boiling)	None	None	Brown powder
Sulfuric Acid	about 1.3	about 114° C (boiling)	100%	Acidic	Clear colorless liquid
Fiberglass Separator	N/A	N/A	Slight	Toxic	White fibrous glass
478 Polystyrene	N/A	N/A	None	No odor	Solid

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### **Flammability Data**

Component	Flashpoint	Explosive Limits	Comments
Lead	None	None	
Sulfuric Acid	N/A	None	
Hydrogen		4%-74.2%	Sealed batteries can emit hydrogen only if over charge (float voltage>2.4VPC)
Fiberglass Separator	None	N/A	Toxic vapors may be released. In case of fire wear, self-contained breathing apparatus.
478 Polystyrene	None	N/A	Temperatures over 300C(572F) may release combustible gases. In case of fire, wear positive pressure self-contained breathing apparatus.

### **Section 10—Stability and Reactivity**

Stability:	Stable
Conditions to avoid:	Avoid shorting, use only approved charging methods. Do not puncture battery case.
Hazardous reactions:	N/A
Decomposition:	N/A
Hazardous Polymerization	Will not occur

### **Section 11---Toxicological Information**

#### **Danger of cumulative effects.(R33)**

**May cause severe irritation.**

**May cause gastro-intestinal disturbances.**

**Can cause damage to the mucous membranes.**

### **Section 12--Ecological Information**

Ecotoxicology – no information available.

### **Section 13---Disposal Considerations**

Send to a lead recycling facility that follows applicable Federal, State and Local regulations for routine disposition of spent or damaged batteries. The distributor/user is responsible to know that “spent” and/or “damaged” batteries (scrap batteries) are disposed of in an environmentally sound way in accordance with all applicable Federal, State and Local Environmental regulations.

CHAMPION batteries are 100% recyclable by any licensed reclamation operation.

### **Section 14---Regulatory and Transportation Information**

We hereby certify that CHAMPION range of Maintenance Free Rechargeable Sealed Lead Acid batteries conform to the UN2800 classification as “Batteries, Non-Spill able, and electric storage” as a result of passing the Vibration and Pressure Differential Test described in DOT (49 CFR 173.159(d) ) and IATA/ICAO (Special Provision A67) .

CHAMPION 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**

Classification and labeling. Not classified as hazardous for supply.

### **Section 16--Supplemental Information**

Under normal conditions of battery use, internal components will not present a health hazard. The information contained in this Safety Data Sheet is provided for battery electrolyte (acid) and lead, for exposure that may occur during battery production or container breakage or under extreme heat conditions such as fire.

Tested as per IMDG Amdt. 31-02, special provision 238 "a" and "b", Comply.

This Safety Data Sheet and the information therein does not constitute the user's own assessment of work place risk as required by other Health & Safety legislation.