Material Safety Data Sheet

Sample: Sealed Lead Acid Battery

Model No: 4V, 6V, 12V; 0.5AH~250AH

Client Unit: CHEE YUEN PLASTIC PRODUCTS (HUIZHOU) CO., LTD

Client Address: China Aerospace Industrial Park, ZhongKai Road, Huizhou, Guangdong Province, China

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Inspected by:

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Comtest Lab for physical & chemical analysis

Material Safety Data Sheet

Section 1 – Chemical Product and Company Identification

Product Name: Sealed Lead Acid Battery

Model No: 4V, 6V, 12V; 0.5AH~250AH

Manufacturer: CHEE YUEN PLASTIC PRODUCTS(HUIZHOU) CO., LTD

Address: China Aerospace Industrial Park, ZhongKai Road, Huizhou, Guangdong Province, China

Post Code: 516001 **Fax No:** 86-752-2601574

Emergency Telephone: 86-752-2627636

E-mail: liuyang@casil-cheeyuen.com

Section 2 – Hazards Identification

Sealed Lead Acid Battery has passed the Vibration test, Pressure differential test, and leakage test at 55°C according to Recommendation on the TRANSPORT OF DANGEROUS GOODS Model Regulation (18th) 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. No harm under normal use. At industrial condition, reference as follow:

Emergency Overview:

The internal battery materials may cause severe irritation to eyes and skin. Cause burns.

Section 2 – Composition/Information on Ingredient

Product Name: Sealed Lead Acid Battery

Chemical Name	Concentration	CAS No.	EC No.
Lead Dioxide	32%	1309-60-0	215-174-5
Lead	31.1%	7439-92-1	231-100-4
Dilute Sulfuric acid	20%	7664-93-9	231-639-5
ABS plastic	13%	9003-56-9	/
Glass Fiber	2%	60676-86-0	262-373-8
Epoxy resin	1.5%	/	/

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 the internal materials, 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 Controls, Personal Protection

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 and Chemical Properties

Appearance: Black plastic cement shell

Odor: Odorless

Melting Point/°C: >300°C

Solubility: Partial soluble in water

Section 10 – 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.

Section 11 – Toxicological Information

Toxicity Data: No available.

Irritation Data: The internal battery materials may cause severe irritation to eyes and skin. Cause 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 clays or by chelation with humic or fulvic acids in the soil. Leak (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 environment officials regarding disposal information. Use 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

The battery has passed the Vibration test, Pressure differential test, and leakage test at 55°C according to Recommendation on the TRANSPORT OF DANGEROUS GOODS Model Regulation (18th) SPECIAL PROVISION 238.

IATA: The battery is NOT RESTRICTED to IATA DGR 58th Edition according to special provision A67

IMO: The battery is NOT RESTRICTED to IMDG CODE according to special provision 238.

Section 15 – Regulatory Information

EU Additional Classification:

S 36/37

Safety Statements: Wear suitable protective clothing and gloves

Section 16 – Additional Information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. We make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of the information for their particular purposes. In no way shall we be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising from using the above information.