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## MATERIAL SAFETY DATA SHEET

### SECTION 1: Chemical Product & Company Information

Name: STATIONARY BATTERY

Manufacturer's Name: SHANDONG SACRED SUN POWER SOURCES CO.LTD

Street Address: NO.1 SHENGYANG ROAD

City, State, Zip: QUFU CITY SHANDONG PROVINCE 273100 CHINA

Phone Number: +86-537-4438666-6027

Version: 2.0

### SECTION 2: Composition/Information on Ingredients

COMPONENTS PERCENT OSHA ACGIH OTHER LIMITS CAS NUMBER

Hazardous Components PEL TLV

1% or greater

Carcinogens 0.01 % or greater

METALLIC METAL ALLOY 25.5% 0.05mg/m<sup>3</sup> .05 mg/m<sup>3</sup> NONE 7439-92-1

LEAD SULFATES 18.2% 0.05mg/m<sup>3</sup> .05 mg/m<sup>3</sup> NONE 7439-92-1

LEAD OXIDES 18.0% 0.05mg/m<sup>3</sup> .05 mg/m<sup>3</sup> NONE 7439-92-1

POLYPROPYLENE CASE MTL 6.4%

SEPARATORS 3.5%

SULFURIC ACID (H<sub>2</sub>SO<sub>4</sub>) 5.2% 1.0 mg/m<sup>3</sup> 1.0 mg/m<sup>3</sup> NONE 7664-93-9

WATER 19.2%

### SECTION 3: Hazards Identification

Flash Point: Not Combustible NFPA WARNING: 1

Auto Ignition Temperature N/A Flammability Limits in Air % by Volume: N/A

Extinguishing Media: Dry Chemical Carbon Dioxide, Water Fog, Water

Special Fire Fighting Procedures: Sulfuric Acid Fumes, Sulfur Dioxide Gas or Carbon Monoxide may be released when acid decomposes. Wear NIOSH approved self contained breathing

apparatus. Unusual Hazards: Water applied to sulfuric acid generates heat and causes acid to spatter. Wear full-cover acid resistant clothing. Sulfuric acid reacts violently with metals, nitrates, chlorates, carbides, fulminates, picrates and other organic materials. Reacts with most metals to yield explosive/flammable hydrogen gas. This reaction is intensified when sulfuric acid is diluted with water to form battery electrolyte.

### SECTION 4: First Aid Measures

Leaving patients from pollute area, washing wither contacted with eyes or skin, then hospitalize.

## SECTION 5: Fire Fighting Measures

Put out fire with dry sands, CO<sub>2</sub>

TO avoid risk of fire or explosion, keep sparks or other sources of ignition away from batteries. Do not allow metallic materials to simultaneously contact negative and positive terminals of cells and batteries. Follow manufacturer's instructions for installation and service.

## SECTION 6: Accidental Release Measures

Putting on safeguard while manage, collect leaks in airtight container

## SECTION 7: Handling and Storage

Storing in cool, dry, ventilated house

## SECTION 8: Exposure Controls/Personal Protection

Respiratory Protection: Sulfuric Acid Mist-Mask with filter approved for acid mist.

Ventilation: Local exhaust: Room air change four times per hour.

Protective Gloves: Rubber

Eye Protection: Goggles, Face Shield

Other Protective Equipment: Rubber Apron, Acid Resistant Clothing Recommended

Work Hygienic Practices: Wash thoroughly after handling

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Components Density Melting Point Solubility (in H<sub>2</sub>O) Odor Appearance

Lead 11.34 327.4°C None None Silver-Gray Metal

Lead Sulfate 6.2 1170°C 40 mg/l (15°C) None White Powder

Lead Dioxide 9.4 290°C None None Brown Powder

Sulfuric Acid About 1.3(25°C) About 114°C (Boiling) 100% Acidic Clear Colorless Liquid

Fiberglass Separator N/A N/A Slight Toxic White Fibrous Glass Membrane

Container (ABS or PP) N/A N/A NONE No Odor Solid Plastics

## SECTION 10: STABILITY AND REACTIVITY

Stability: STABLE

CONDITIONS TO AVOID: Charging and over-charging without proper ventilation.

Incompatibility: AVOID COMBUSTIBLES, ORGANIC MATERIALS, AND STRONG REDUCING AGENTS.

## SECTION 11: TOXICOLOGICAL INFORMATION

HEALTH HAZARDS - Acute: Eyes, Skin, Respiratory System & Digestive System

Chronic: Eyes, Skin, Respiratory System & Digestive System

Signs and Symptoms of Exposure: Irritation of Exposed Area, Burns, and Respiratory Problems

No possibility of over exposure of lead will occur unless battery is destroyed.

**MEDICAL CONDITIONS GENERALLY:**

Aggravated by Exposure: Exposure to mist may cause lung damage & aggravate pulmonary conditions.

**SECTION 12: ECOLOGICAL INFORMATION**

All care should be taken to protect the environment from any adverse impact by stationary batteries or from the batteries ingredients.

**SECTION 13: DISPOSAL CONSIDERATIONS**

stationary sealed battery are restricted land disposal objects. All spent batteries should be properly Recycled to a permitted Secondary Lead Smelter.

**All battery parts should be properly recycled.**

No whole spent lead-acid battery should be land-filled or placed in house hold garbage.

**SECTION 14 : TRANSPORT INFORMATION**

Poper shipping name : stationary sealed battery CAS NO: 7439-92-1

This product is not dangerous product subject to IMO TMDG CODE,its package and transport conforms to the requirement of sea transport.

**SECTION 15 : REGULATORY INFORMATION**

REGULATORY INFORMATION: Those ingredients in stationary sealed batteries listed above are not subject to the reporting requirements of 313 of Title III of the Superfund Amendments and Re-authorization Act, if the sealed batteries are in storage and have no potential to leak.

**SECTION 16 : Other Information**

SPS 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. For all modes of transportation, each battery outer package is labeled "NON-SPILLABLE".