

天溯
Tian Su



深圳天溯计量检测股份有限公司
ShenZhen Tiansu Calibration and Testing Co.,Ltd.

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Safety Data Sheet

本报告本年度有效
有效期至2023年12月31日

Name of sample:

Lead-acid battery

Client:

Hangzhou Ruiyun Electronics Co., Ltd

Shenzhen Tiansu Calibration and Testing Co.,Ltd
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SDS

TS(SZ)-J3-006-001-A1

Chemical product and company identification

Commissioned by	Hangzhou Ruiyun Electronics Co., Ltd
Commissioner address	Room 201, floor 2, building 1, No.535, Shunfeng Road, Yuhang District, Hangzhou City, Zhejiang Province
Manufacturer	Hangzhou Ruiyun Electronics Co., Ltd
Manufacturer address	Room 201, floor 2, building 1, No.535, Shunfeng Road, Yuhang District, Hangzhou City, Zhejiang Province
Name of samples	Lead-acid battery
Type/Model	12V2.5AH, 12V5.5AH, 12V7.5AH, 12V15AH, 12V1AH-200AH
Rated capacity	2.5AH,5.5AH,7.5AH, 15AH, 1AH-200AH
Nominal voltage	12V, 12V,12V,12V,12V
Rated energy	30Wh,66Wh,90Wh, 180Wh, 12Wh-2400Wh
Inspection according to	EEC Directive 93/112/EC UN "Recommendations on the TRANSPORT OF DANGEROUS GOODS"
Emergency telephone call	Wang Kun 13858413082
Seal:  Date of issue: Dec. 15, 2022	

Approved by

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Reviewed by

Choy Qiu

Project Engineer

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Gu Lina

Test Engineer

Hazards identification

Explosive risk	This article does not belong to the explosion dangerous goods.
Flammable risk	This article does not belong to the flammable material.
Oxidation risk	This article does not belong to the oxidation of dangerous goods.
Toxic risk	This article does not belong to the toxic dangerous goods.
Radioactive risk	This article does not belong to the radiation of dangerous goods.
Mordant risk	This article does not belong to the corrosion of dangerous goods.
Other risk	This article is Lead-acid battery, Watt hour rate 30Wh, which belong to the Lead acid batteries.

Composition information

Material or ingredient	CAS No.	Wt %
Lead/Lead Oxide/Lead Sulfate	7439-92-1	60-97%
Sulfuric Acid (Battery Electrolyte)	7664-93-9	< 5%
Arsenic (inorganic)	7440-38-2	< 0.3%
Calcium	7440-70-2	<0.15%
Antimony	7440-36-0	<0.15%
Tin	7440-31-5	< 0.03%

First aid measures

Eye: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin: Remove contaminated clothes and rinse skin with plenty of water or shower for 15 minutes. Get medical aid.

Inhalation: Remove from exposure and move to fresh air immediately. Use oxygen if available.

Ingestion: Give at least 2 glasses of milk or water. Induce vomiting unless patient is unconscious. Call a physician.

Fire-fighting measures

Unusual Fire and Explosion Hazards: Highly flammable hydrogen gas is generated during charging and operation of batteries. 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 cell and batteries. Follow manufacturer's instructions for installation and service.

Flammable Limits: LEL=4.1% (Hydrogen Gas), UEL=74.2%

Extinguishing Media: CO₂; foam; dry chemical.

Special Fire Fighting Procedures: If batteries are on charge, shut off power. Use positive pressure, self-contained breathing apparatus. Water applied to electrolyte generate sheat and causes it to spatter. Wear acid-resistant clothing.

Accidental release measures

Steps to be taken in case Material is Released or Spilled

Stop release, if possible. Avoid contact with any spilled material. Contain spill, isolate hazard area, and deny entry. Limit site access to emergency responders. Neutralize with sodium bicarbonate, soda ash, lime or other neutralizing agent. Place battery in Suitable container for disposal. Dispose of contaminated material in accordance with applicable local, state and federal regulations. Sodium bicarbonate, soda ash, sand, lime or other neutralizing agent should be kept on-site for spill remediation.

Personal Precautions: Acid resistant aprons, boots and protective clothing. ANSI approved safety glasses with side shields/face shield recommended. Ventilate enclosed areas.

Environmental Precautions: Lead and its compounds and sulfuric acid can pose a severe threat to the environment. Contamination of water, soil, and air should be prevented.

Handling and storage

The battery should not be opened, destroyed or incinerate, since they may leak or rupture and release to the environment the ingredients that they contain in the hermetically sealed container. Do not short circuit terminals, or over charge the battery, forced over-discharge, throw to fire. Do not crush or puncture the battery, or immerse in liquids.

Precautions to be taken in handling and storing

Avoid mechanical or electrical abuse. Storage preferably in cool, dry and ventilated area, which is subject to little temperature change. Storage at high temperatures should be avoided. Do not place the battery near heating equipment, nor expose to direct sunlight for long periods.

Other Precautions

The battery may explode or cause burns, if disassembled, crushed or exposed to fire or high temperatures. Do not short or install with incorrect polarity.

Exposure controls/personal protection

Respiratory Protection

In case of battery venting, provide as much ventilation as possible. Avoid confined areas with venting cell cores. Respiratory Protection is not necessary under conditions of normal use.

Ventilation

Not necessary under conditions of normal use.

Protective Gloves

Not necessary under conditions of normal use.

Other Protective Clothing or Equipment

Not necessary under conditions of normal use.

Personal Protection is recommended for venting battery

Respiratory Protection, Protective Gloves, Protective Clothing and safety glass with side shields.

Physical and chemical properties

Appearance: Prismatic.

Odour: Under normal circumstances, is odorless; if leaking, smells of medical ether.

pH: Not applicable as supplied.

Flash Point: Not applicable unless individual components exposed.

Flammability: Not applicable unless individual components exposed.

Relative density: Not applicable unless individual components exposed.

Solubility (water): Not applicable unless individual components exposed.

Solubility (other): Not applicable unless individual components exposed.

Stability and reactivity

Stability: Product is stable under conditions described in Section 7.

Conditions to Avoid : Heat above 70°C or incinerate. Deform. Mutilate. Crush. Disassemble. Overcharge. Short circuit. Expose over a long period to humid conditions.

Materials to avoid: Oxidising agents, alkalis, water.

Hazardous Decomposition Products : Toxic Fumes, and may form peroxides.

Hazardous Polymerization : N/A.

If leaked, forbidden to contact with strong oxidizers, mineral acids, strong alkalies, halogenated hydrocarbons.

Toxicological information

Signs & symptoms: None, unless battery ruptures.

In the event of exposure to internal contents, vapour fumes may be very irritating to the eyes and skin.

Inhalation: Lung irritant.

Skin contact: Skin irritant.

Eye contact: Eye irritant.

Ingestion: Poisoning if swallowed.

Medical conditions generally aggravated by exposure: In the event of exposure to internal contents, moderate to server irritation, burning and dryness of the skin may occur, Target organs nerves, liver and kidneys.

Ecological information

Mammalian effects: None known at present.

Eco-toxicity: None known at present.

Bioaccumulation potential: Slowly Bio-degradable.

Environmental fate: None known environmental hazards at present.

Disposal consideration

Do not incinerate, or subject cells to temperature in excess of 70°C, Such abuse can result in loss of seal leakage, and/or cell explosion. Dispose of in accordance with appropriate local regulations.

Transport information

Scope of application: This report applies to by sea,by land,by air.

Label for conveyance: N/A.

UN Number: UN2800.

Proper Shipping name : N/A.

Hazard Classification: Not Restricted As per IMDG CODE Specoal Provision 238.

Regulation information

《Dangerous Goods Regulations》

《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 Substance Control Act》 (TSCA)

《Consumer Product Safety Act》 (CPSA)

《Federal Environmental Pollution Control Act》 (FEPCA)

《Resource Conservation and Recovery Act》 (RCRA)

《California Proposition 65》

《Code of Federal Regulations》 (CFR)

In accordance with all Federal, State and local laws.

Other information

The commissioner provides the composition information of batteries, and promises its integrity and accuracy. Users should read this file carefully, and use the batteries in correct method. Shenzhen Tiansu Calibration and Testing Co.,Ltd.,doesn't assume responsibility for any damage or loss because of misuse of batteries.

STATEMENTS

1. The test report is invalid without the official stamp of Tiansu.
2. Nobody is allowed to photocopy or partly photocopy this test report without written permission of Tiansu.
3. The test report is invalid without the signatures of Ratifier, Reviewer and Testing engineer.
4. The test report is invalid if altered.
5. Objections to the test report must be submitted to Tiansu within 15 days.
6. The test report is valid for the tested samples only.

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