Safety Data Sheet

According to HCS-2012 APPENDIX D TO §1910.1200

Version: 1.0/EN
Product name: VRLA Battery

STA12550
STASLA12180

Revision date: 07/08/2013
Printing date: 07/08/2013

1. Identification

(a) Product identifier

Product name: VRLA Battery

(b) Other means of identification

Product model:	Lead acid (non spillable) battery
Product number:	85072000
Voltage:	2V, 4V, 6V, 8V, 12V
Ampere hour:	0.8AH-3000AH

(c) Recommended use of the chemical and restrictions on use

Recommended use:	Energy storage, backup power.
Restriction on use:	No information available.

(d) Details of the supplier of the product

Company name:	FUJIAN HUAXIANG POWER TECHNOLOGY COMPANY LIMITED
Address:	XINGTAI DEVELOPMENT ZONE, ZHANGZHOU, FUJIAN, CHINA
Postcode:	362000
E-mail:	William@hxexport.com
Telephone:	+86-595-22211585
Fax:	+86-595-22211586

(e) Emergency phone number

+86-595-22211585

2. Hazard(s) identification

(a) Classification of the chemical

The battery is a non spillable lead acid battery, and this product is not classified as hazardous.

(b) Label elements

Pictogram(s):	No pictogram is used.
Signal word:	No signal word is used.
Hazard statements:	Not classified.
Precautionary statements:	Not classified.

(c) Description of any hazards not otherwise classified

Valve Regulated Lead Acid batteries are a non-spillable design. Under normal use and handing the customer has on contact with the internal components of the battery or the chemical hazards. Under normal use and handling these batteries do not emit regulated or hazardous substances.

Warning: Battery terminals/Posts and related accessories contain lead and lead compounds, chemicals known to the state of California to cause cancer and reproductive harm.

(d) Ingredient with unknown acute toxicity

No information available.

3. Composition/information on ingredients

(a) Mixtures information: ingredients contained within the battery

Chemical name	CAS No.	Concentration
Lead	7439-92-1	70
Antimony	7440-36-0	0.2
Calcium	7440-70-2	0.002
Sulfuric acid	7664-93-9	25
Polypropylene	9003-07-0	4.5
Polystyrene	9003-53-6	0.5
Styrene-butadiene copolymers	9003-55-8	0.05

4. First-aid measures

(a) Description of first aid measures

Caution! No effect under routine handling and use. If exposure to internal materials within cell due to damaged outer metal casing, the following actions are recommended.

Inhalation: Remove to fresh air. Give oxygen or artificial respiration if needed. Get immediate medical attention

Skin contact: Remove contaminated clothing and flush affected areas with plenty of water for at least 15 minutes.

Eye contact: Flush with plenty of water for at least 15 minutes. Get immediate medical attention.

Ingestion: Do not induce vomiting. Dilute by giving large quantities of water. If available give several glasses of milk. Do not give anything by mouth to an unconscious person. Give CPR if breathing has stopped. Get immediate medical attention.

(b) Most important symptoms/effects, acute and delayed

Routes of entry: By inhalation (mist), skin and eyes, ingestion.

Acute: Tissue destruction on contact. May cause 2nd and 3rd degree burns or blindness. Ingestion will cause corrosive burns on contact .May be fatal if swallowed.

Chronic: Inhalation of mists may cause upper respiratory irritation.

Sign and Symptoms: Irritation and burning of exposed tissues.

Medical conditions: Respiratory disorders may be aggravated by prolonged inhalation of mists.

(c) Immediate medical attention and special treatment

Treat symptomatically and supportively.

5. Fire-fighting measures

(a) Extinguishing media

Suitable extinguishing media: Dry chemical, foam, halon or CO_2.

Unsuitable extinguishing media: No information available.

(b) Special hazards arising from the chemical

Hydrogen gas may be generated in an overcharged condition, in fire or at very high temperatures (Hydrogen is flammable and oxygen supports combustion). CO, CO2 and sulfur oxides may emit in fire.

(c) Special protective equipment and precautions for fire-fighters

If batteries are on charge, turn off power. Use positive pressure, self-contained breathing apparatus in fighting fire. Water applied to electrolyte generates heat and causes it to splatter. Wear acid resistant clothing. Ventilate area well.

6. Accidental release measures

(a) Personal precautions, protective equipment and emergency procedures

No action shall be taken involving any personal risk or without suitable training. Avoid skin contact and inhalation of vapors. Use proper personal protective equipment as indicated in Section 8. Appropriate ventilation.

(b) Methods and materials for containment and cleaning up

If electrolyte leaks or spills, neutralize any electrolyte or exposal internal battery parts with soda ash (sodium bicarbonate) until fizzing stops. Keep untrained personnel away from electrolyte and broken battery. Place broken battery and clean-up materials in a plastic bag or non-metallic container. Dispose of clean-up materials as a hazardous waste. Ventilate area as hydrogen gas may be given off during neutralization.

7. Handling and storage

(a) Precautions for safe handling

Remove jewelry, rings, watches and any other metallic objects while working on batteries. All tools should be adequately insulated to avoid the possibility of shorting connections. DO NOT lay tools on top of battery. Be sure to discharge static electricity from tools and individual person by touching a grounder surface in the vicinity of the batteries, but away from cells. Batteries are heavy. Serious injury can result from improper lifting or pulling the terminal posts for safety reasons and because terminal posts and post seals may be damaged. DO NOT lift, carry, install or remove cells by wear nylon clothes orveralls as they can create static electricity. DO KEEP a class "C" fire extinguisher and emergency communications device in the work area. Do not charge in unventilated areas. Do not use organic solvents or other than recommended chemical cleaners on battery. Wash hands thoroughly after working with batteries and before eating, drinking or smoking.

(b) Conditions for safe storage, including any incompatibilities

Store in cool, dolt area away from combustible materials. Do not store in sealed, unventilated areas. Avoid overheating and overcharging.

8. Exposure controls/personal protection

(a) Control parameters

CAS No.	Exposure Limits
7439-92-1	NIOSH REL: TWA 0.050 mg/m^3 OSHA PEL: TWA 0.050 mg/m^3
7440-36-0	NIOSH REL: TWA 0.5 mg/m^3 OSHA PEL: TWA 0.5 mg/m^3
7664-93-9	NIOSH REL: TWA 1 mg/m^3 OSHA PEL: TWA 1 mg/m^3

(b) Appropriate engineering controls

Normal room ventilation is sufficient during normal use and handling. Recommend 2 to 3 room air changes per hour

to prevent buildup of hydrogen gas.

(c) Personal protective equipment

Respiratory protection:	In case of battery venting, provide as much ventilation as possible.
Hand protection:	Use rubber or neoprene gloves.
Eye/face protection:	Always wear safety glasses with side shields or full face shield.
Skin/body protection:	Wear acid resistant boots, apron or clothing.

9. Physical and chemical properties

(a) Appearance	A solid article consisting of an opaque plastic case with two protruding lead terminals or tin-plated brass terminals.
(b) Odor	Odorless
(c) Odor threshold	Not available.
(d) pH	Not available.
(e) Melting point/freezing point	Not available.
(f) Initial boiling point and boiling range	Electrolyte: 110℃-112℃
(g) Flash point	Not available.
(h) Evaporation rate	Not available.
(i) Flammability	Not available.
(j) Upper/lower flammability or explosive limits	Not available.
(k) Vapor pressure	Electrolyte: 11.7 mm Hg at 20℃
(l) Vapor density	Electrolyte: 34
(m) Specific Gravity(H20=1)	Electrolyte: 1.300
(n) Solubility(ies)	Lead, lead oxide and lead sulfate are insoluble in water. Sulfuric acid is 100% soluble in water.
(o) Partition coefficient: n-octanol/water	Not available.
(p) Auto-ignition temperature	Not available.
(q) Decomposition temperature	Not available.
(r) Viscosity	Not available.

10. Stability and reactivity

(a) Reactivity

No information available.

(b) Chemical stability

Stable under normal conditions.

(c) Possibility of hazardous reactions

Hazardous polymerization will not occur.

(d) Conditions to avoid

Sparks and other sources of ignition.
Prolonged overcharge fire or explosion hazard due to possible hydrogen gas generation.

(e) Incompatible materials

Combination of sulfuric acid with combustibles and organic materials may cause fire and explosion. Avoid strong reducing agents, most metals, carbides, chlorates, nitrates.

(f) Hazardous decomposition products

Hydrogen gas may be generated in an overcharged condition, in fire or at very high temperatures. CO, CO2 and sulfur oxides may emit in fire.

11. Toxicological information

(a) Information on the likely routes of exposure

Inhalation:	No effect under routine handling and use for sealed battery.
	Exposure to internal contents, the corrosive fumes will be irritation to mucous membranes.
Ingestion:	No effect under routine handling and use for sealed battery.
	Exposure to internal contents may cause severe chemical burn to mouth, esophagus and gastrointestinal system.
Skin contact:	No effect under routine handling and use for sealed battery.
	Exposure to internal contents may result in chemical burns.
Eye contact:	No effect under routine handling and use for sealed battery.
	Exposure to internal contents may result in severe irritation and chemical burns.

(b) Information on toxicological characteristics

Acute toxicity:	No information available.
Skin corrosion/irritation:	No information available.
Serious eye damage/irritation:	No information available.
Respiratory sensitization:	No information available.
skin sensitization:	No information available.
Carcinogenicity:	CAS#7439-92-1: IARC 2B
	CAS#7664-93-9: IARC 1
	CAS#9003-07-0: IARC 3
	CAS#9003-53-6: IARC 3
	CAS#9003-55-8: IARC 3
Germ Cell Mutagenicity:	No information available.
Reproductive Toxicity:	No information available.
STOT-Single Exposure:	No information available.
STOT-Repeated Exposure:	No information available.
Aspiration Hazard:	No information available.

12. Ecological information

(a) Ecotoxicity

No information available.

(b) Persistence and Degradability

No information available.

(c) Bioaccumulative potential

No information available.

(d) Mobility in soil

No information available.

(e) Other adverse effects

If the battery is discarded into the environment, the harmful contents inside may be toxic to aquatic life with long lasting effects.

13. Disposal considerations

(a) Safe handling and methods of disposal

Federal and State laws prohibit the improper disposal of all lead acid batteries. The battery end users (owners) are responsible for their batteries from the date of purchase through their ultimate disposal. The only legally accept able method of disposal of lead acid batteries is to recycle them at a Resource Conservation and RecoveryAct (RCRA) approved secondary lead smelter. The Huaxiang SAV-LEAD Recycling Program allows for the recycling of lead-acid batteries in an environmentally sound manner. These batteries are chemically identical to common automotive starter batteries and can be recycled with automotive lead-acid batteries.
HAZARDOUS WASTE CODES: D002, D008

14. Transport information

DOT-Unregulated, meets the requirements of 49 CFR173, 159(d).
IATA/ICAO-Unregulated, meets the requirements the requirements of Special Provision A67.
IMO-Unregulated, IMDG-Unregulated, meets the requirements of Special Provision 29&238.

(a) UN number	Not regulated as dangerous goods
(b) UN Proper shipping name	Not regulated as dangerous goods
(c) Transport hazard class(es)	Not regulated as dangerous goods
(d) Packing group (if applicable)	Not regulated as dangerous goods
(e) Marine pollutant (Yes/No)	No
(f) Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code)	No information available.
(g) Special precautions	For all modes of transportation, each battery and outer package must be labeled: "Non-Spillabe" or "NON-Spillable Battery." This label must be visible during transportation. Batteries must be securely packed to prevent short circuiting.

15. Regulatory information

(a) Safety, health and environmental regulations specific for the product in question

CAS No.	USA TSCA	China IECSC	Canada DSL
7439-92-1	Listed	Listed	Listed
7440-36-0	Listed	Listed	Listed
7440-70-2	Listed	Listed	Listed
7664-93-9	Listed	Listed	Listed

9003-07-0	Listed	Listed	Listed
9003-53-6	Listed	Listed	Listed
9003-55-8	Listed	Listed	Listed
Remark: The above-mentioned search results are based on the Non-Confidential Inventory.			

16. Other information, including date of preparation or last revision

(a) Preparation and revision information

Date of previous revision: Not applicable. Date of this revision: 07/08/2013

Revision summary: The first New SDS

(b) Abbreviations and acronyms

ACGIH	American Conference of Governmental Industrial Hygienists
OSHA:	The United States Occupational Safety and Health Administration.
TWA:	time-weighted average
STEL:	Short term exposure limit
DOT:	US Department Of Transportation)
IMDG:	International Maritime Dangerous Goods
IATA:	International Air Transport Association
TSCA:	Toxic Substances Control Act, The American chemical inventory.
DSL	Domestic Substances List
IECSC:	Inventory of existing chemical substances in China.

(c) Disclaimer

The information in this SDS is provided all the relevant data fully and truly. However, the information is provided without any warranty on their absolute extensiveness and accuracy. This SDS was prepared to provide safety preventive measures for the users who have got professional training. The personal user who obtained this SDS should make independent judgment for the applicability of this SDS under special conditions. In these special cases, we do not assume responsibility for the damage.

---------- End of the SDS ----------