

Safety Data Sheet

Issuing Date 01-Nov-2014

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Revision Number 1.3

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name Dry Charged Powersports Battery Electrolyte-Sulfuric Acid
STX-BS Series

Recommended Use Start-Stop Battery, Dilute Sulfuric Acid

Supplier Address:

Starmax Corporation
1585 Cliveden Avenue
Delta, BC
V4A 9V5

Phone: 1 888 669-1310
Contact: Technical Support
support@starmaxbatteries.co
Contact Phone: 888 669-1310

2. HAZARDS IDENTIFICATION

Emergency Overview

NOTE: Under normal conditions of battery use, internal components will not present a health hazard. The following information is provided for battery acid exposure that may occur during battery production or container breakage or under extreme heat conditions such as fire.




In case of rupture:

Corrosive

The product causes burns of eyes, skin and mucous membranes

Appearance: Clear to Cloudy **Physical State:** Fluid. **Odor:** Acidic

Label Elements :

Health	Environmental	Physical
		
<p>Hazard Statements DANGER! Causes severe skin burns and eye damage. Causes serious eye damage. May damage fertility or the unborn child if ingested or inhaled. May cause cancer if ingested or inhaled. Causes damage to central nervous system, blood and kidneys through prolonged or repeated exposure. May form explosive air/gas mixture during charging. Extremely flammable gas (hydrogen). Explosive, fire, blast or projection hazard.</p>	<p>Precautionary Statements Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing, eye protection/face protection. Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well ventilated area. Causes skin irritation, serious eye damage. Contact with internal components may cause irritation or severe burns. Avoid contact with internal acid. Irritating to eyes, respiratory system, and skin.</p>	

Potential Health Effects**Principle Routes of Exposure**

Skin contact.

Acute Toxicity**Eyes**

Corrosive to the eyes and may cause severe damage including blindness.

Skin

Causes burns.

Inhalation

Harmful by inhalation. Contact with moist mucous membranes of the respiratory system can cause caustic condition resulting in burns.

Ingestion

Harmful if swallowed. Can burn mouth, throat, and stomach.

Chronic Effects

Chronic exposure to sulfuric acid may cause erosion of tooth enamel, inflammation of nose, throat and respiratory system.

Main Symptoms**Aggravated Medical Conditions**

None known.

Environment Hazard

See Section 12 for additional Ecological Information

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %
Sulfuric Acid	7664-93-9	30~40
Water	7732-18-5	60~70

4. FIRST AID MEASURES

General Advice

First aid is upon rupture of sealed battery.

Eye Contact

Immediate medical attention is required. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area.

Skin Contact

Immediate medical attention is required. Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes.

Inhalation

Move to fresh air. Call a physician or Poison Control Center immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Ingestion

Immediate medical attention is required. Call a physician or Poison Control Center immediately. Do NOT induce vomiting. Drink plenty of water. Never give anything by mouth to an unconscious person. Remove from exposure, lie down.

Notes to Physician

Treat symptomatically.

Protection of First-aiders

Use personal protective equipment. Avoid contact with skin, eyes and clothing.

5. FIRE-FIGHTING MEASURES

Flammable Properties

Not flammable.

Flash Point

Not determined.

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Uniform Fire Code

• Corrosive: Acid-Liquid

Hazardous Combustion Products

Hazardous metal fumes and oxides.

Explosion Data Sensitivity to Mechanical Impact

No.

Sensitivity to Static Discharge

No.

Specific Hazards Arising from the Chemical

The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapors. In the event of fire and/or explosion do not breathe fumes.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health Hazard 3

Flammability 0

Stability 2

Physical and Chemical Hazards

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

Use personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Do not get in eyes, on skin, or on clothing.

Environmental Precautions

Refer to protective measures listed in Sections 7 and 8.

Methods for Containment

Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up

In case of rupture: Use personal protective equipment. Dam up. Soak up with inert absorbent material. Take up mechanically and collect in suitable container for disposal. Clean contaminated surface thoroughly.

Other Information

Refer to protective measures listed in Sections 7 and 8.

7. HANDLING AND STORAGE

Handling

Handle in accordance with good industrial hygiene and safety practice.

Storage

Keep containers tightly closed in a dry, cool and well-ventilated place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Other Exposure Guidelines

Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir. , 1992).

Engineering Measures

Showers
Eyewash stations
Ventilation systems

Personal Protective Equipment

Eye/Face Protection

Tightly fitting safety goggles.

Skin and Body Protection

Wear protective gloves/clothing.

Respiratory Protection

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

COMPONENTS	DENSITY (g/cm ³)	BOILING POINT	SOLUBILITY (H ₂)	ODOR	APPEARANCE
Sulfuric Acid (H ₂ SO ₄)	1.28-1.33	105°C-120°C, 221°F-248°F	100%	Sharp, penetrating, pungent odor	Clear Colorless Liquid

10. STABILITY AND REACTIVITY

Stability	Stable under recommended storage conditions.
Incompatible Products	Incompatible with strong acids and bases. Incompatible with oxidizing agents.
Conditions to Avoid	Exposure to air or moisture over prolonged periods.
Hazardous Decomposition Products	Thermal decomposition can lead to release of toxic/corrosive gases and vapors
Hazardous Polymerization	Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Product Information	Product does not present an acute toxicity hazard based on known or supplied information.
Irritation	Causes severe irritation and or burns

Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sulfuric acid	= 2140 mg/kg (Rat)	-	= 510 mg/m ³ (Rat) 2 h

Chronic Toxicity

Chronic Toxicity	Lead compounds may be absorbed by ingestion, by inhalation and through the skin. Lead may damage kidney function, the blood forming system and the reproductive system. Avoid repeated exposure.
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Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Sulfuric acid		Group 1-Carcinogenic	NTP	
PP		Group 3		

ACGIH: (American Conference of Governmental Industrial Hygienists)

A2 - Suspected Human Carcinogen

A3 - Animal Carcinogen

IARC: (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 2A - Probably Carcinogenic to Humans

NTP: (National Toxicity Program)

Known - Known Carcinogen

Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

OSHA: (Occupational Safety & Health Administration)

X - Present

Reproductive Toxicity	Product is or contains a chemical which is a known or suspected reproductive hazard.
Developmental Toxicity	Contains ingredients that have suspected developmental hazards. Inorganic lead compounds can cause developmental damage.
Target Organ Effects	None known.

12. ECOLOGICAL INFORMATION

Ecotoxicity

The environmental impact of this product has not been fully investigated.

Effect dose	Exposure time	Species	Method	Evaluation	Remark
82 mg/L	24 Hours	Brachydanio rerio	LC50		
22 mg/L	96 Hours	Cyprinus carpio	LOEC		Lowest observable effect concentration

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods	This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261). Should not be released into the environment.
Contaminated Packaging	Do not re-use empty containers.
US EPA Waste Number	D002 D008
Waste treatment methods	Product/packaging disposal: Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

14. TRANSPORT INFORMATION

GROUND – US DOT:	The transportation of electrolyte within the continental United States is regulated by the U.S.DOT through the CFR49. These regulations classify electrolyte as a hazardous material. Electrolyte must be packed according to 173.202 or 173.242 depending upon the nature of the shipment. The shipping information for electrolyte is as follows:
Proper Shipping Name :	Battery Fluid, Acid
Hazard Class/Division :	8
ID Number :	UN2796
Packing Group :	II
Label Required :	Corrosive

15. REGULATORY INFORMATION

International Inventories

TSCA Complies
 DSL Not determined

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) . This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical Name	CAS-No	Weight %	SARA 313 - Threshold Values %
Sulfuric acid	7664-93-9	15~25	1.0

SARA 311/312 Hazard Categories Acute Health Hazard Yes

Chronic Health Hazard Yes

Fire Hazard No

Sudden Release of Pressure Hazard No

Reactive Hazard No

Clean Water Act

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42):

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Sulfuric acid	1000 lb			X

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs
Sulfuric acid	1000 lb	1000 lb

U.S. State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals:

Chemical Name	CAS-No	California Prop. 65
Sulfuric acid	7664-93-9	Carcinogen

U.S. State Right-to-Know Regulations

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Sulfuric acid	X	X	X	X	X

International Regulations

Mexico - Grade Minimum risk, Grade 0

Chemical Name	Carcinogen Status	Exposure Limits
Sulfuric acid	A2	Mexico: TWA 1 mg/m3

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class

D2A Very toxic materials E Corrosive material



Chemical Name	NPRI
Sulfuric acid	X

Legend

NPRI - National Pollutant Release Inventory

16. OTHER INFORMATION

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Revision Note Version Upgrade

Starmax Battery Corp 1585 Cliveden Avenue | Delta, BC V3M 6M1

General Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of Safety Data Sheet