POWER PS SONIC
TRUSTED BATTERY SOLUTIONS

MATERIAL SAFETY DATA SHEET

VALVE-REGULATED SLA BATTERIES
MAINTENANCE-FREE NON-SPILLABLE

SECTION 1: PRODUCT IDENTIFICATION

Product Name: Maintenance Free Battery: PS, PSH, PSG, PHR, PG, PDC and DCG Valve Regulated (VRLA) Batteries Absorbed Electrolyte (AGM)

Common Synonyms: SEALED LEAD ACID BATTERY, DRY BATTERY,BATTERY SMF, CAR & TRUCK BATTERIES, RECHARGEABLE BATTERY,CAR BATTERY,GOLF CART BATTERY,BATTERIES, AUTOMOTIVE BATTERY,GEL BATTERY,VRLA LEAD ACID BATTERIES, UPS BATTERY,PURE LEAD ACID BATTERY,NON-DANGEROUS CARGO DRY BATTERY,MOTORCYCLE BATTERYLT9-4(12V8AH),UPS BATTERY,BATTERIES MOTOS SELON,VRLA LEAD ACID BATTERIES,VRLA BATTERY,MAINTENANCE FREE BATTERY,VRLA BATTERY, MOTORCYCLE BATTERY

DOT Description:	Non-Spillable
Chemical Family:	Electrical Battery Standby
Manufacturer's Name:	Power Sonic Corporation
Address:	365 Cabela Dr, Suite 300, Reno NV, 89503
Emergency Telephone:	(619) 661-2020
Date Issued:	Jan. 01, 2021

Australian & New Zealand Supplier
Getinge Australia Pty Ltd, Lv7/11 Help Street Chatswood NSW 2067
Tel: 1800 438 464

Getinge Australia (NZ Branch)
Lv.2/building B/ 600 Great South Road, Ellersie, Auckland
Tel: 0800 1 438 4643

AUS Emergency Tel: +61 2 8014 4558
NZ Emergency Tel: +64 9 929 1483

SECTION 2: HAZARDOUS INGREDIENTS / IDENTITY INFORMATION

COMPONENTS	Approx % byWt.	CAS Number	Air Exposure Limits (µg/m$^{3)}$			LD50 ORAL (mg/kg)
			ACGIH TLV	OSHA	NIOSH	
Inorganic Lead/Lead Compounds	65%-75%	7439-92-1	150	50	10	500
Tin	<0.5%	7440-31-5	2000	2000	--	--
Calcium	<0.1%	7440-70-2	--	--	--	--
Dilute Sulfuric Acid	~20%	7664-93-9	1000	1000	1000	2.14
Fiberglass Separator	~ 5%	--	--	--	--	--
Case Material: Acrylonitrile Butadiene Styrene (ABS) or Polypropylene (PP)	~5%	9003-56-9 9003-07-0	--	--	--	--

SECTION 3: PHYSICAL DATA

COMPONENTS	DENSITY	MELTING/BOILING (M/B) POINT	SOLUBILITY (H_2O)	ODOR	APPEARANCE
Lead	11.34	327.46 °C, 621.43 °F (M)	None	None	Sliver-Gray Metal
Lead Sulfate	6.20	1170 °C, 2138 °F (B)	40 mg/l (15 °C, 59 °F)	None	White crystals or powder
Lead Dioxide	9.40	290 °C, 554 °F (M)	None	None	Dark brown Powder
Sulfuric Acid	~1.3	95°C -115°C , 203°F - 240°F (B)	100%	Sharp, penetrating, pungent odor	Clear Colorless Liquid
Fiberglass Separator	--	--	Slight	None	White Fibrous
Case Material: Acrylonitrile Butadine Styrene (ABS) or Polypropylene(PP)	--	--	None	None	Solid

SECTION 4: FLAMMABILITY DATA

COMPONENTS	FLASHPOINT	EXPLOSIVE LIMITS	COMMENTS
Lead	None	None	None
Sulfuric Acid	None	None	None
Hydrogen	--	LEL=4.1%	Sealed batteries can emit hydrogen only if over charged (float voltage> 2.4 VPC). The gas enters the air through the vent caps. To avoid the chance of a fire or explosion, keep sparks and other sources of ignition away from the battery. Extinguishing Media: Dry chemical, foam, CO2
Fiberglass Separator	--	--	Toxic vapors may be released. In case of fire: wear self-contained breathing apparatus.
Acrylonitrile Butadiene Styrene(ABS) or Polypropylene (PP)	None	--	Temperatures over 300 ～ 380 °C (572 ～ 653°F) may release combustible gases. In case of fire: wear positive pressure self-contained breathing apparatus.

SECTION 5: REACTIVITY DATA

COMPONENT	**Lead/lead compounds**
Stability	Stable
Incompatibility	Potassium, carbides, sulfides, peroxides, phosphorus, sulfurs, ketone, ester, petrolatum
Decomposition products	Oxides of lead and sulfur.
Condition to avoid	High temperature, Sparks and other sources of ignition.
COMPONENT	**Sulfuric Acid**
Stability	Stable
Incompatibility	Reactive metals, strong bases, most organic compounds
Decomposition products	Sulfuric dioxide, trioxide, hydrogen sulfide, hydrogen
Condition to avoid	Prohibit smoking, sparks, etc. from battery charging area. Avoid mixing acid with other chemicals.
POLYMERIZTION	Sulfuric acid will not polymerize

SECTION 6: HEALTH HAZARD DATA

Battery is considered as sealed non-spillable one. Under normal operating conditions, the materials sealed inside should not be hazardous to people’s health. Only when these materials exposed during production or under case broken condition or being extremely heated (fired), they may be hazardous to people’s health.

Routes of Entry:
Sulfuric Acid: Harmful by all routes of entry.
Lead Compounds: Hazardous Exposure can occur only when product is heated, oxidized, or otherwise processed or damagedto create dust, vapor or fume.

Inhalation:
Sulfuric Acid: Breathing sulfuric acid vapors and mists may cause severe respiratory problems.
Lead Compounds: Dust or fumes may cause irritation of upper respiratory tract or lungs.
Fiberglass Separator: Fiberglass is an irritant to the upper respiratory tract, skin and eyes. For exposure up to 10F°/ use MSA Comfo with type H filters. Above 10F use Ultra Twin with type H filter. This product is not considered carcinogenic by NTPor OSHA.

Skin Contact:
Sulfuric Acid: Severe irritation, burns and ulceration.
Lead Compounds: Not absorbed through the skin.

Ingestion:
Sulfuric Acid: May cause severe irritation of the mouth, throat, esophagus, and stomach.
Lead Compounds: May cause abdominal pain, nausea, vomiting, diarrhea, and severe cramping. Acute ingestion should betreated by a physician.

Acute Health Hazards:
Sulfuric Acid: Severe skin irritation, burns, damage to cornea may cause blindness, upper respiratory irritation.
Lead Compounds: May cause abdominal pain, nausea, headaches, vomiting, loss of appetite, severe cramping, muscular aches and weakness, and difficulty sleeping. The toxic effects of lead are cumulative and slow to appear. It affects the kidneys, reproductive and central nervous systems. The symptoms of lead overexposure are listed above. Exposure to lead from a battery most often occurs during lead reclamation operations through the breathing or ingestion of lead dust or fumes.

SECTION 7 ACCIDENTAL RELEASE MEASURES

Chronic Health Hazards:
Sulfuric acid: Possible scarring of the cornea, inflammation of the nose, throat and bronchial tubes, possible erosion of tooth enamel.
Lead Compounds: May cause anemia, damage to kidneys and nervous system, and damage to reproductive system in both males and females.

Medical Conditions Generally Aggravated by Exposure
Inorganic lead and its compounds can aggravate chronic forms of kidney, liver, and neurological diseases. Contact of battery electrolyte (acid) with the skin may aggravate skin diseases such as eczema and contact dermatitis. Overexposure to sulfuric acid mist may case lung damage and aggravate pulmonary conditions.

Emergency and First Aid Procedures
Inhalation
Sulfuric Acid: Remove to fresh air immediately. If breathing is difficult, give oxygen
Lead Compounds: Remove from exposure, gargle, wash nose and lips, consult physician
Ingestion
Sulfuric Acid: Do not induce vomiting, consult a physician immediately.
Lead Compounds: Consult a physician immediately
Eyes
Sulfuric Acid: Flush immediately with water for 15 minutes, consult a physician.
Lead Compounds: Flush immediately with water for 15 minutes, consult a physician
Skin
Sulfuric Acid: Flush with large amounts of water for at least 15 minutes, remove any contaminated clothing. If irritation develops seek medical attention.
Lead Compounds: Wash with soap and water.

SECTION 8: CARCINOGENICITY

Carcinogenicity
Sulfuric Acid: The National Toxicological Program (NTP) and The International Agency for Research on Cancer (IARC) have classified strong inorganic acid mist containing sulfuric acid as a Category 1 carcinogen, a substance that is carcinogenic to humans. The ACGIH has classified strong inorganic acid mist containing sulfuric acid as an A2 carcinogen (suspected human carcinogen). These classifications do not apply to liquid forms of sulfuric acid or sulfuric acid solutions contained within a battery. Inorganic acid mist (sulfuric acid mist) is not generated under normal use of this product. Misuse of the product, such as overcharging, may result in the generation of sulfuric acid mist.
Lead Compounds: Human studies are inconclusive regarding lead exposure and an increased cancer risk. The EPA and the International Agency for Research on Cancer (IARC) have categorized lead and inorganic lead compounds as a B2 classification (probable/possible human carcinogen) based on sufficient animal evidence and inadequate human evidence.

SECTION 9: PRECAUTIONS FOR SAFE HANDLING AND USE

Spill or Leak Procedures
In case the release occurs, stop flow of material: contain/absorb small spills with dry sand, earth, and vermiculite. If possible, carefully neutralize spilled electrolyte with soda ash, sodium bicarbonate, lime, etc. Wear acid-resistant clothing, boots, gloves, and face shield. Do not allow discharge of un-neutralized acid into sewer.

Waste Disposal Method
Spent Batteries - send to secondary lead smelter for recycling. Follow applicable federal, state and local regulations Neutralize as in preceding step. Collect neutralized material in sealed container and handle as hazardous waste as applicable. A copy of this MSDS must be supplied to any scrap dealer or secondary lead smelter with the battery or, consult state environment agency and/or federal EPA.

Handling and Storing
Store batteries in a cool, dry, well-ventilated area that are separated from incompatible materials and any activities which may generate flames, sparks, or heat. Keep all metallic articles that could contact the negative and positive terminals on a battery and create a short circuit condition. Battery should be stored under roof for protection against adverse weather conditions. Store and handle only in areas with adequate water supply and spill control. Avoid damage to battery case.

Electrical Safety
Due to the battery's low internal resistance and high-power density, high levels of short circuit current can be developed across the battery terminals. Do not rest tools or cables on the battery. Use insulated tools only. Follow all installation instructions and diagrams when installing or maintaining battery systems.

Fiberglass Separator
Fiberglass is an irritant to the upper respiratory tract, skin, and eyes. For exposure up to 10F°/ use MSA Comfo with type H filters. Above 10F use Ultra Twin with type H filter. This product is not considered carcinogenic by NTP or OSHA.

SECTION 10: ECOLOGICAL INFORMATION

Lead and its compounds can pose a threat if released to the environment. See Waste Disposal Method in Section 8.

SECTION 11: CONTROL MEASURES

Engineering Controls:
Store and handle in well-ventilated area. If mechanical ventilation is used, components must be acid resistant

Work Practices:
Handle batteries cautiously to avoid damaging the case. Avoid contact with internal components. Do not allow metallic articles to contact the battery terminals during handling.

Respiratory Protection:
None required under normal conditions. When concentrations of sulfuric acid mist are known to exceed PEL, use NIOSH or MSHA-approved respiratory protection.

Personal Protection and Equipment: None needed under normal conditions. If battery case is damaged,

- Protective gloves: use rubber or plastic acid-resistant gloves with elbow-length gauntlet.
- Eye protection: use chemical goggles or face shield.
- Other protection: Acid-resistant apron. Under severe exposure or emergency conditions, wear acid – resistant clothing and boots.
- In areas where sulfuric acid is handled in concentrations greater than 1%, emergency eyewash stations and showers should be provided, with unlimited water supply.

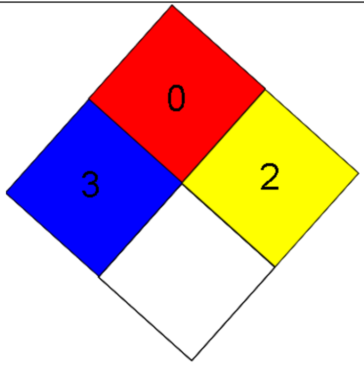
SECTION 12: NFPA HAZARD RATING FOR SULFURIC ACID

A. Not applicable under normal conditions.

B. In case of damage resulting in breakage of the battery container, see section 10, personal protection and equipment.

SECTION 13: NFPA HAZARD RATING FOR SULFURIC ACID

Flammability (Red)	**0**
Health (Blue)	**3**
Reactivity (Yellow)	**2**



SECTION 14: TRANSPORTATION REGULATIONS (Non-Restricted Status)

Proper Shipping Name: Batteries, dry, Non-Spillable, and dry storage

North America Ground and Air Shipment

Our non-spillable lead acid batteries are under the U.S. Department of Transportation's (DOT) hazardous materials regulations but are excepted from these regulations since they meet all of the following requirements found at 49 CFR173.159(d) – NMFC # 60680 Class 65.

- When offered for transport, the batteries are protected against short circuits and securely packaged as required by49 CFR 173.159(d) (1);
- The batteries and outer packaging are marked with the words NONSPILLABLE BATTERY as required by 49 CFR173.159(d) (2);

The batteries comply with the vibration and pressure differential tests found in 49 CFR 173.159(d) (3) and "crack test" found at 49 CFR 173.159(d) (4).

International Shipments

Our non-spillable lead acid batteries also are ***excepted*** from the international hazardous materials (also known as "dangerous goods") regulations since they comply with the following requirements:

- The vibration and pressure differential tests found in Packing Instruction 806 and Special Provision A67 of the **International Air Transport Association (IATA) Dangerous Goods Regulations**;

  The vibration and pressure differential tests found in Packing Instruction 806 and Special Provision A67 of the **International Civil Aviation Organization (ICAO)** Technical Instructions for the Safe Transport of Dangerous Goods by Air;

- The vibration, pressure differential, and "crack" tests found in Special Provision 238.1 and 238.2 of the **International Maritime Dangerous Goods (IMDG) Code.**

- **IMO:** Non-Hazardous for Sea Transport: Non-hazardous for sea transport.

SECTION 15: Regulatory Information

RCRA

Spent lead acid batteries are not regulated as hazardous waste by the EPA when recycled, however state and international regulations may vary.

CERCLA (superfund) and EPCRA

(a) Reportable Quantity (RQ) for spilled 100% sulfuric acid under CERCLA (superfund) and EPCRA (Emergency Planning Community Right to Know Act is 1,000lbs. State and local reportable quantities for spilled sulfuric acid may vary.

(b) Sulfuric acid is a listed "Extremely Hazardous Substance" under EPCRA with a Threshold Planning Quantity (TPQ) of 1,000lbs.

(c) EPCRA Section 302 Notification is required if 1,000lbs. or more of sulfuric acid is present at one site. The quantity of sulfuric acid will vary by battery type. Contact Power-Sonic Corporation for additional information.

(d) EPCRA Section 312 Tier 2 reporting is required for batteries if sulfuric acid is present in quantities of 500lbs. or more and/or lead is present in quantities of 10,00lbs. or more.

(e) Supplier Notification: This product contains toxic chemicals which may be reportable under EPCRA Section 313 Toxic Chemical Release Inventory (Form R) requirements. If you are a manufacturing facility under SIC codes 20 through 39 the following information is provided to enable you to complete the required reports:

Toxic Chemical	CAS Number	Approximate % by weight
Lead	7439-92-1	60
Sulfuric Acid	7664-93-9	10 - 30
Arsenic	7440-38-2	<0.01

If you distribute this product to other manufacturers in SIC codes 20 through 39, this information must be provided with the first shipment in a calendar year. The Section 313 supplier notification requirement does not apply to batteries which are "consumer products". Not present in all battery types. Contact Power-Sonic Corporation for further information.

TSCA

Components	CAS Number	TSCA Status
Electrolyte Sulfuric Acid (H_2SO_4)	7664-93-9	Listed
Inorganic Lead Compound: Lead (Pb)	7439-92-1	Listed
Lead Oxide (PbO)	1917-36-8	Listed
Lead Sulfate ($PbSO_4$)	7446-14-2	Listed
Calcium (Ca)	7440-70-2	Listed
Tin (Sn)	7440-31-5	Listed
Arsenic (As)	7440-38-2	Listed

SECTION 16: OTHER INFORMATION

Prepared By	Power Sonic
Contact at Power Sonic	customerservice@power-sonic.com or your Sales Manager
Issuing Date	Jan.01, 2021
Revision Note	No information available

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