

# MATERIAL SAFETY DATA SHEET

**POWER**   
POWER BATTERY COMPANY, INC.

**Power's sealed  
batteries**

MANUFACTURER		Power Battery Co., Inc.		ISSUED BY Robert F. Malley	
ADDRESS		543-63 E. 42ND STREET, PATERSON, N.J. 07513 PHONE: (201) 523-8630 FAX: (201) 523-9553		DATE Issued 11-16-85 Rev. 2-23-87 Rev. 11-1-91	
PRODUCT NAME		Batteries		TELEPHONE NO. (201) 523-8630	
HAZARDOUS COMPONENTS		CONTAINS: LEAD (CAS 7439-92-1) SULFURIC ACID (CAS 7664-83-8) CORROSIVE			

## HAZARDOUS COMPONENTS

COMPONENT	% WEIGHT	OSHA PEL (TLV)	LD <sub>50</sub>	LC <sub>50</sub>	LD <sub>50</sub>
			ORAL	INHALATION	CONTACT
Lead (as Pb, PbO <sub>2</sub> , PbSO <sub>4</sub> )	65-75%	0.050 mg/m <sup>3</sup>	< 500 mg/kg	< 20 mg/m <sup>3</sup>	N/A
Sulfuric Acid	17-30%	1 mg/m <sup>3</sup>	2.140 kg/kg	18 mg/m <sup>3</sup>	135 mg/kg

## PHYSICAL DATA

COMPONENT	DENSITY	MELTING POINT (BOILING)	SOLUBILITY IN WATER	ODOR	APPEARANCE
Lead	11.34 gm/cm <sup>3</sup>	621.5° F	None	None	Silver-Gray Metal
Lead Sulfate	6.2 gm/cm <sup>3</sup>	2132° F	.43 mg/l	None	White Powder
Lead Dioxide	9.375 gm/cm <sup>3</sup>	d.554° F	None	None	Brown Powder
Sulfuric Acid	1.290 gm/cm <sup>3</sup>	235° F	100%	Acidic	Clear Colorless Liquid

## FLAMMABILITY DATA

COMPONENT	FLASHPOINT	EXPLOSIVE LIMITS	COMMENTS
Lead	None	None	Use "ABC" type fire extinguisher for battery fires.
Sulfuric Acid	None	None	
Hydrogen	< 0° F	4%-74.2%	PRC Sealed batteries can emit hydrogen only if over charged (float voltage 2.40vpc).

## HEALTH HAZARD DATA

<b>LEAD</b>	The toxic effects of lead are accumulative, and slow to appear. It affects the kidneys, reproductive, and central nervous system. The symptoms of lead overexposure are anemia, vomiting, headache, stomach pain (lead colic), dizziness, loss of appetite, and muscle and joint pain. Exposure to lead from a battery most often occurs during lead reclaim operations through the breathing or ingestion of lead dusts and fumes. THIS SHEET MUST BE PASSED TO ANY SCRAP DEALER OR SMELTER WHEN THE BATTERY IS RESOLD.
<b>SULFURIC ACID</b>	Sulfuric acid is a strong corrosive. Contact with the acid can cause severe burns to the skin and eyes. Ingestion of sulfuric acid will cause GI tract burns. Acid can be released if the battery case is damaged or if the vents are tampered with.
SEE OTHER SIDE FOR FIRST AID INSTRUCTIONS.	

## REACTIVITY DATA

COMPONENTS	Sulfuric Acid
STABILITY	Stable at all temperatures
POLYMERIZATION	Will not polymerize
INCOMPATIBILITY	Reactive metals, strong bases, most organic compounds
DECOMPOSITION PRODUCTS	Sulfuric dioxide, trioxide, hydrogen sulfide, hydrogen
CONDITIONS TO AVOID	Prohibit smoking, sparks, flames, etc. from battery charging area. Avoid mixing acid with other chemicals.

## SPILL OR LEAK PROCEDURES

<b>STEPS TO TAKE IN CASE OF LEAK OR SPILL</b>
If sulfuric acid is spilled from a battery, neutralize the acid with sodium bicarbonate (baking soda), sodium carbonate (soda ash) or calcium oxide (lime). Flush the area with water, and discard to the sewage system. Do not allow unneutralized acid into the sewage system.
<b>WASTE DISPOSAL METHOD</b>
Neutralized acid may be flushed down the sewer. 1. Spent lead acid batteries are disposed of using 3 acceptable methods: send the batteries to: (a) licensed secondary lead smelters for recycling (b) reputable battery handlers (c) reputable scrap dealers. 2. If the user has to transport these batteries to the smelters, the user must follow Department of Transportation (DOT) regulations. A copy of this material safety data sheet must be supplied to any scrap dealer or secondary lead smelter.

## PROTECTION

EXPOSURE SITE	PROTECTION	COMMENTS
SKIN	Rubber Gloves, Apron	Protective equipment must be worn if the battery is cracked or otherwise damaged. HEPA respirator should be worn during reclaim operations, if the OSHA PEL is exceeded.
RESPIRATORY		
EYES	Safety Goggles, Face Shield	

## ELECTRICAL SAFETY

Due to the PRC 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 any installation instructions and diagrams when installing or maintaining battery systems.

## FIRST AID

### Sulfuric Acid:

Skin Contact — Flush with water, see physician if contact area is large, or if blisters form.

Eye Contact — Call physician immediately, flush with water until physician arrives.

Ingestion — Call physician. **DO NOT INDUCE VOMITING.** If patient is conscious, flush mouth with water, have patient drink milk, or sodium bicarbonate solution. **DO NOT GIVE ANYTHING TO AN UNCONSCIOUS PERSON.**