

EAST PENN manufacturing co., inc.

-Material Safety Data Sheet - BATTERY ELECTRIC STORAGE, DRY 8 UN2794 PGIII

SECTION I

Manufacturer's Name: East Penn Manufacturing Co. Inc.
Deka Road, Lyon Station, PA 19536

Date Prepared: Revised April 1994

Telephone Number for Information: (610) 682-6361

Emergency Telephone Number: CHEMTREC: 1-800-424-9300,
In Washington D.C. or outside continental U.S., call 1-202-483-7616

SECTION II

Hazardous Ingredients/Identity Information

Hazardous Components Specific Chemical Identity (Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	Percent
Lead, CAS #7439921	0.05 mg/m ³	0.15 mg/m ³	N/A	43-70
Sulfuric Acid, CAS #7664939	1.00 mg/m ³	1.00 mg/m ³	N/A	20-44
Antimony, CAS #7440360	0.50 mg/m ³	0.50 mg/m ³	N/A	0-4

SECTION III

Physical/Chemical Characteristics (Sulfuric Acid)

Appearance and Odor: clear, odorless, colorless
Boiling Point: approximately 235°F
Evaporation Rate (Butyl Acetate=1): less than 1.0
Melting Point: N/A

Solubility in Water: completely
Specific Gravity (H₂O=1): 1.220-1.325
Vapor Density (AIR=1): N/A
Vapor Pressure (mm Hg.): 13

SECTION IV

Fire and Explosion Data

Flash Point (Method Used): non-flammable
Extinguishing Media: Class ABC extinguisher, CO₂ and/or Halon
Special Fire Fighting Procedures: Cool exterior of battery if exposed to fire to prevent rupture. The acid mist and vapors in a fire situation are corrosive. Wear special respiratory protection (SCBA) and clothing.

Flammable Limits: *hydrogen gas
LEL: 4% **UEL:** 74%

Unusual Fire and Explosion Hazards: *Hydrogen gas, which may explode if ignited, is produced by this battery, especially when charging. Use adequate ventilation, avoid open flames, sparks, or other sources of ignition.

SECTION IV

Reactivity Data (Battery Case)

Stability: Stable
Incompatibility (Materials to Avoid): Strong oxidizing agents such as hot nitric acid, etc.
Hazardous Decomposition of By-Products: Combustion can produce carbon dioxide (CO₂) and carbon monoxide (CO).
Hazardous Polymerization: will not occur

Condition to Avoid: Cases decompose at 160-410°C (322-770F)
Conditions to Avoid: not applicable

SECTION VI

Health Hazard Data (Sulfuric Acid)

Route(s) of Entry: Inhalation, skin contact, and ingestion

Health Hazards (Acute and Chronic): Short term exposure: Sulfuric acid may cause irritation of eyes, nose, and throat. Prolonged contact may cause severe burns. Long term exposure: Repeated contact causes irritation and skin burns. Repeated exposure to mist may cause erosion of teeth, chronic eye irritation and/or chronic inflammation of the nose, throat, and bronchial tubes.

TARGET ORGAN: respiratory system, eyes, skin, & teeth

Carcinogenicity: N/A

Signs and Symptoms of Exposure: Acid contact may cause irritation of eyes, nose and throat. Breathing of mist may produce respiratory difficulty. Contact with eyes and skin causes irritation and skin burns. Sulfuric acid is a CORROSIVE chemical.

Medical Conditions Generally Aggravated by Exposure: Pulmonary edema, bronchitis, emphysema, dental erosion, and traceobronchitis

Emergency and First Aid Procedures:

- 1) Flush contacted area with large amounts of water for at least 15 minutes. Remove contaminated clothing and obtain medical attention.
 - 2) If swallowed, give large volumes of water. DO NOT induce vomiting, obtain medical treatment.
 - 3) Eyewash and shower stations should be made available.
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SECTION VII

Precautions for Safe Handling and Use

Steps to be Taken in Case Material is Released or Spilled: SULFURIC ACID: Dilute spill cautiously with five to 6 volumes of water and gradually neutralize with sodium bicarbonate, soda ash or lime. When exposure level is not known, wear NIOSH approved positive pressure self-contained breathing apparatus. (Reference DOT UN2796)

Waste Disposal Method: Lead-acid batteries are completely recyclable. For information on returning batteries to East Penn for recycling, call (610) 682-6361.

Precautions to be Taken in Handling and Storing: Store away from reactive material as defined in Section V, Reactivity Data.

Other Precautions: Sodium bicarbonate, soda ash, sand, or lime should be kept in same general area for emergency use. See Section IV on generation of hydrogen gas. If battery case is broken, avoid direct contact with internal components.

SECTION VIII

Control Measures

Respiratory Protection (Specific Type): Acid gas respirator required when PEL is exceeded or employee witnesses respiratory irritation. (See Section VI, Health Hazard Data).

Ventilation: Must be provided when charging in an enclosed area. 29CFR1910.178 (g) and .305 (j) (7)

Mechanical (general): acceptable at 1 to 4 air exchanges/hour or to maintain air concentrations below the PEL.

Local exhaust: preferred

Special:

Other: local building/fire codes may require explosion proof fans and equipment

Protective Gloves: acid resistant (for example, rubber)

Eye Protection: preferred

Other Protective Clothing or Equipment: acid resistant aprons, boots, and protective clothing

Work/Hygienic Practices: Good personal hygiene and work practices are mandatory.