

**Material Safety Data Sheet**  
 May be used to comply with  
 OSHA's Hazard Communication Standard,  
 29 CFR 1910.1200. Standard must be  
 consulted for specific requirements.

**U.S. Department of Labor**  
 Occupational Safety and Health Administration  
 (Non-Mandatory Form)  
 Form Approved  
 OMB No. 1218-0072

000148



**IDENTITY (As Used on Label and List)**  
 Battery Electrolyte

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

**Section I**

Manufacturer's Name East Penn Manufacturing Co., Inc.	Emergency Telephone Number (215) 682-6361
Address (Number, Street, City, State, and ZIP Code) Deka Road	Telephone Number for Information (215) 682-6361
Lyon Station, PA 19536	Date Prepared September 23, 1986
	Signature of Preparer (optional)

**Section II — Hazardous Ingredients/Identity Information**

Hazardous Components (Specific Chemical Identity; Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Sulfuric acid CAS #007664939	1.0mg/M <sup>3</sup>	1.0mg/M <sup>3</sup>	N.A.	30

N.A. (not applicable)

**Section III — Physical/Chemical Characteristics**

Boiling Point	235° F	Specific Gravity (H <sub>2</sub> O = 1)	1.220 - 1.325
Vapor Pressure (mm Hg.)	13	Melting Point	not applicable
Vapor Density (AIR = 1)	not applicable	Evaporation Rate (Butyl Acetate = 1)	less than 1.0
Solubility in Water	completely		
Appearance and Odor	clear, odorless, colorless		

**Section IV — Fire and Explosion Hazard Data**

Flash Point (Method Used) non-flammable	Flammable Limits not applicable	LEL	UEL
Extinguishing Media not applicable			

**Special Fire Fighting Procedures**  
 sulfuric acid will not burn, but is capable of igniting finely divided combustible material on contact. Combustibles may be smothered by dry chemical extinguishing media.

**Unusual Fire and Explosion Hazards**  
 not applicable.

**Section V - Reactivity Data**

Stability	Unstable		Conditions to Avoid Contact with metal may release explosive hydrogen gas.
	Stable	X	

**Incompatibility (Materials to Avoid)** Strong alkali materials, carbides, chlorates, nitrates and perates, organic acid, acetates, anhydrites

**Hazardous Decomposition or Byproducts**  
Thermal decomposition or combustion may produce a sulfur trioxide, and/or sulfur dioxide.

Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur	X	

**Section VI - Health Hazard Data (SULFURIC ACID)**

**Route(s) of Entry:** Inhalation? Skin? Contact Ingestion?

**Health Hazards (Acute and Chronic)** Short term exposure: Sulfuric acid may cause irritation of eyes, nose and throat. Prolonged contact may cause severe skin burns.

Long term exposure: Repeated contact causes irritation and skin burns. Repeated exposure to mist may cause teeth erosion, chronic eye irritation, and/or chronic inflammation of the nose, throat and bronchial tubes.

**TARGET ORGANS:** Respiratory system, eyes, skin and teeth.

**Carcinogenicity:** NTP? Not applicable. IARC Monographs? OSHA Regulated?

**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 tracheobronchitis.

**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.

**Section VII - Precautions for Safe Handling and Use**

**Steps to Be Taken in Case Material is Released or Spilled**  
Dilute spill cautiously with 5 to 6 volumes of water and neutralize gradually with soda ash or lime. When exposure level is not known, wear NIOSH approved positive pressure self contained respirator.

**Waste Disposal Method**  
Place in acid resistant containers. Disposal must be made in accordance with applicable governmental regulations.

**Precautions to Be Taken in Handling and Storing**  
Store away from reactive materials. (Reactivity Data Section V)

When handling, use proper personal protective equipment. (Control Measures Section VIII)

**Other Precautions**  
Soda ash, sand or lime should be kept in same general area for emergency use.

**Section VIII - Control Measures**

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

Ventilation	Local Exhaust	Special
	Mechanical (General)	Other Adequate ventilation to maintain exposure below PEL.

**Protective Gloves** Acid resistant (i.e., rubber) **Eye Protection** Chemical safety goggles and/or face shield.

**Other Protective Clothing or Equipment** Acid resistant aprons, boots and protective clothing.

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