



# **EAST PENN manufacturing co., inc.**

**MAIN OFFICE  
LYON STATION, PA. 19536  
PHONE (215) 682-6361**

June 30, 1988

Ms. Carole E. Wasko  
Facilities Planning  
Syracuse City School District  
725 Harrison Street  
Syracuse, N. Y. 13210

Dear Ms. Wasko:

Enclosed please find copies of the Material Safety Data Sheets you requested for Battery Acid and Battery Electrolyte.

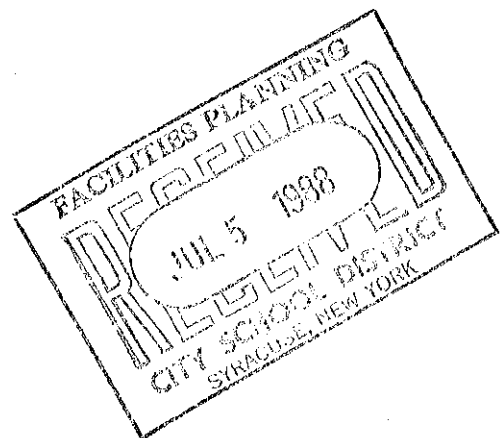
If you should have future requests, please direct them to Troy Greiss, Manager of Industrial Hygiene, or to myself.

I would appreciate if you would send me a short acknowledgement of receipt.

Sincerely,

Margaret A. Aulenbach  
Secretary

Enclosure



**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



**IDENTITY (As Used on Label and List)**  
 Battery Electric Storage

*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**

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

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

Hazardous Components (Specific Chemical Identity; Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Lead CAS #7439921	0.05mg/M <sup>3</sup>	0.15mg/M <sup>3</sup>	N.A.	43 - 70
Antimony CAS #7440360	0.5mg/M <sup>3</sup>	0.5mg/M <sup>3</sup>	N.A.	0 - 4
Sulfuric Acid CAS #7664939	1.0mg/M <sup>3</sup>	1.0mg/M <sup>3</sup>	N.A.	20 - 44

N.A. (not applicable)

**Section III -- Physical/Chemical Characteristics (SULFURIC ACID)**

<b>Boiling Point</b> approx. 235° F	<b>Specific Gravity (H<sub>2</sub>O = 1)</b> 1.220 - 1.500
<b>Vapor Pressure (mm Hg.)</b> 13	<b>Melting Point</b> not applicable
<b>Vapor Density (AIR = 1)</b> not applicable	<b>Evaporation Rate (Butyl Acetate = 1)</b> less than 1.0

**Solubility in Water**  
Completely.

**Appearance and Odor**  
Clear, odorless, colorless

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

<b>Flash Point (Method Used)</b> Non-flammable	<b>Flammable Limits</b> *hydrogen gas	<b>LEL</b> 4%	<b>UEL</b> 74%
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**Extinguishing Media**  
Class ABC extinguisher, CO<sub>2</sub> 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.

**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 V — Reactivity Data (BATTERY CASE)**

Stability	Unstable		Conditions to Avoid Cases decompose at 160-410° C (322°-770° F)
	Stable	X	

**Incompatibility (Materials to Avoid)**

Strong oxidizing agents such as hot nitric acid, etc.

**Hazardous Decomposition or Byproducts** Combustion can produce carbon dioxide (CO<sub>2</sub>) and carbon monoxide (CO).

Hazardous Polymerization	May Occur		Conditions to Avoid Not applicable
	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.

<b>Carcinogenicity:</b> Not applicable.	NTP?	IARC Monographs?	OSHA Regulated?
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**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** SULFURIC ACID: Dilute spill cautiously with 5 to 6 volumes of water and gradually neutralize with sodium bicarbonate, soda ash or lime. When exposure level is now know, wear NIOSH approved pressure self-contained respirator.**Waste Disposal Method** Disposal must be made in accordance with applicable governmental regulations.**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 (Specify Type)** Acid gas respirator required when PEL is exceeded or employee witnesses respiratory irritation. (See Section VI, Health Hazard Data)

When charging in enclosed area	Local Exhaust Preferred.	Special
	Mechanical (General) Acceptable at 1 to 4 air exchanges/hour	Other

**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.