

===== Product Identification =====

Product ID:BATTERY ELECTRIC STORAGE

MSDS Date:09/23/1986

FSC:6140

NIIN:00-199-4991

MSDS Number: BKHHM

=== Responsible Party ===

Company Name:EAST PENN MANUFACTURING CO., INC.

Address:DEKA ROAD

City:LYON STATION

State:PA

ZIP:19536

Info Phone Num:(215) 682-6361

Emergency Phone Num:(215) 682-6361

CAGE:DO231

=== Contractor Identification ===

Company

Name:EAST PENN MANUFACTURING CO., INC.

Address:DEKA ROAD

City:LYON STATION

State:PA

ZIP:19536

Phone:215-682-6361/800-424-9300(CHEMTREC)

CAGE:DO231

Company Name:EAST PENN MFG CO INC

Address:DEKA RD

Box:City:LYON STATION

State:PA

ZIP:19536

Country:US

Phone:610-682-6361

CAGE:04055

===== Composition/Information on Ingredients =====

Ingred Name:LEAD (SARA III)

CAS:7439-92-1

RTECS #:OF7525000

Fraction by Wt: 43-70%

OSHA PEL:0.05 MG/M3;1910.1025

ACGIH TLV:0.15 MG/M3;DUST 9192

EPA

Rpt Qty:1 LB  
DOT Rpt Qty:1 LB

Ingred Name:ANTIMONY (SARA III)  
CAS:7440-36-0  
RTECS #:CC4025000  
Fraction by Wt: 0-4%  
OSHA PEL:0.5 MG/M3  
ACGIH TLV:0.5 MG SB/M3; 9192  
EPA Rpt Qty:5000 LBS  
DOT Rpt Qty:5000 LBS

Ingred Name:SULFURIC ACID (SARA III)  
CAS:7664-93-9  
RTECS #:WS5600000  
Fraction by Wt: 20-44%  
OSHA PEL:1 MG/M3  
ACGIH TLV:1 MG/M3; 9192  
EPA Rpt Qty:1000 LBS  
DOT Rpt Qty:1000 LBS

===== Hazards Identification =====

Routes of Entry: Inhalation:YES Skin:YES In  
gestion:YES  
Reports of Carcinogenicity:NTP:NO IARC:YES OSHA:NO  
Health Hazards Acute and Chronic:INHALATION: IRRITATION & INFLAMMATION  
OF THE NOSE, THROAT, & BRONCHIAL TUBES, RESPIRATORY DIFFICULTY &  
IRRITATION. SKIN: IRRITATION, BURNS, & CORROSIVE. INGESTION:  
EROSION OF TEETH. EYES: IRRITATION & CORROSIVE.  
Explanation of Carcinogenicity:LEAD IS A SUSPECTED A2 CARCINOGEN BY  
ACGIH.  
Effects of Overexposure:INHALATION: IRRITATION & INFLAMMATION OF NOSE,  
THROAT, & BRONCHIAL T  
UBES, RESPIRATORY DIFFICULTY & IRRITATION.  
SKIN: CORROSIVE, BURNS, & IRRITATION. INGESTION: EROSION OF TEETH.  
EYES: IRRITATION & COR ROSIVE.  
Medical Cond Aggravated by Exposure:PULMONARY EDEMA, BRONCHITIS,  
EMPHYSEMA, DENTAL EROSION & TRACHEOBRONCHITIS

===== First Aid Measures =====

First Aid:EYES/SKIN: FLUSH W/LARGE AMOUNTS OF WATER FOR AT LEAST 15  
MINS. INGESTION: GIVE LARGE AMOUNTS OF WATER. DON'T INDUCE  
VOMITING. INHALATION: REMOVE T

O FRESH AIR. OBTAIN MEDICAL ATTENTION  
IN ALL CASES.

===== Fire Fighting Measures =====

Flash Point:NON-FLAMMABLE

Lower Limits:4%

Upper Limits:74%

Extinguishing Media:CLASS ABC EXTINGUISHER, CO2, OR HALON

Fire Fighting Procedures:WEAR SELF-CONTAINED BREATHING APPARATUS &  
PROTECTIVE CLOTHING.

Unusual Fire/Explosion Hazard:COOL EXTERIOR OF BATTERY IF EXPOSED TO  
FIRE TO PREVENT RUPTURE. HYDROGEN GAS, WHICH MAY EXPLODE IF  
IGNITED, IS PRODUCED WHEN C  
HARGING.

===== Accidental Release Measures =====

Spill Release Procedures:DILUTE SPILL CAUTIOUSLY W/FIVE TO SIX VOLUMES  
OF WATER & GRADUALLY NEUTRALIZE W/SODIUM BICARBONATE, SODA ASH OR  
LIME. WEAR PROTECTIVE EQUIPMENT.

Neutralizing Agent:SODIUM BICARBONATE, SODA ASH, OR LIME

===== Handling and Storage =====

Handling and Storage Precautions:STORE AWAY FROM REACTIVE MATERIAL. IF  
BATTERY CASE IS BROKEN, AVOID DIRECT CONT  
ACT W/INTERNAL COMPONENTS.

AVOID OPEN FLAMES/SPARKS/IGNITION SOURCES.

Other Precautions:USE ADEQUATE VENTILATION.

===== Exposure Controls/Personal Protection =====

Respiratory Protection:WEAR NIOSH APPROVED PRESSURE SELF-CONTAINED  
RESPIRATOR WHEN EXPOSURE LEVEL ISN'T KNOWN. WEAR ACID GAS  
RESPIRATOR WHEN >PEL OR EMPLOYEE WITNESSES RESPIRATORY IRRITATION.

Ventilation:LOCAL EXHAUST: PREFERRED WHEN CHARGING IN ENCLOSED AREA.  
MECHANICAL: ACCEPTABLE AT 1 TO 4 AIR EX  
CHANGES/HOUR.

Protective Gloves:ACID RESISTANT, SUCH AS RUBBER

Eye Protection:CHEMICAL SAFETY GOGGLES OR FACE SHIELD

Other Protective Equipment:ACID RESISTANT APRONS, BOOTS, PROTECTIVE  
CLOTHING, EYEWASH, & SHOWER STATIONS

Work Hygienic Practices:REMOVE/LAUNDER CONTAMINATED CLOTHING BEFORE  
REUSE. PROVIDE GOOD PERSONAL HYGIENE & WORK PRACTICES.

Supplemental Safety and Health

===== Physical/Chemical Properties =====

Boiling Pt:B.P. Text: 235F

Decomp Temp:Decomp

Text:322-770F

Vapor Pres:13

Spec Gravity:1.22-1.325

Evaporation Rate & Reference:(BU AC = 1):