

## 1. Identification

<b>Product identifier</b>	<b>Lead Acid Battery Wet, Filled With Acid</b>
<b>Other means of identification</b>	
<b>Synonyms</b>	may include gel/absorbed electrolyte type lead acid batteries
<b>Recommended use</b>	Electric storage battery.
<b>Recommended restrictions</b>	None known.
<b>Manufacturer/Importer/Supplier/Distributor information</b>	
<b>Manufacturer/Supplier</b>	East Penn Manufacturing Company, Inc.
<b>Address</b>	102 Deka Road, Lyon Station PA 19536
<b>Telephone number</b>	(610) 682-6361
<b>Contact person</b>	East Penn EHS Department
<b>Emergency telephone number</b>	USA/Canada: CHEMTREC (800) 424-9300, Outside USA 1 (703) 527-3887
<b>E-mail</b>	contactus@eastpenn-deka.com

## 2. Hazard(s) identification

<b>Physical hazards</b>	Not classified.	
<b>Health hazards</b>	Acute toxicity, oral	Category 4
	Acute toxicity, inhalation	Category 4
	Skin corrosion/irritation	Category 1
	Serious eye damage/eye irritation	Category 1
	Reproductive toxicity	Category 1
	Specific target organ toxicity, single exposure	Category 1 (Respiratory system)
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
	Specific target organ toxicity, repeated exposure	Category 1 (Respiratory system)
<b>Environmental hazards</b>	Hazardous to the aquatic environment, acute hazard	Category 1
	Hazardous to the aquatic environment, long-term hazard	Category 1

### Label elements



<b>Signal word</b>	Danger
<b>Hazard statement</b>	Harmful if swallowed. Harmful if inhaled. Causes severe skin burns and eye damage. Causes serious eye damage. May damage fertility or the unborn child. Causes damage to organs (Respiratory system). Causes damage to organs (Respiratory system) through prolonged or repeated exposure. May cause respiratory irritation. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.
<b>Precautionary statement</b>	
<b>Prevention</b>	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not eat, drink or smoke when using this product. Do not breathe dust. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection. Wash thoroughly after handling. Avoid release to the environment.

<b>Response</b>	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Get medical advice/attention. Immediately call a POISON CENTER or doctor/physician. Collect spillage.
<b>Storage</b>	Store in a well-ventilated place. Keep container tightly closed.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Other hazards</b>	Under normal conditions of processing and use, exposure to the chemical constituents in this product is unlikely. The battery should not be opened or burned. Exposure to the ingredients contained within or their combustion products could be harmful.
<b>Supplemental information</b>	In use, may form flammable/explosive vapor-air mixture.

### 3. Composition/information on ingredients

#### Mixtures

Chemical name	CAS number	%
Lead and lead compounds (inorganic)	7439-92-1	43 - 70
Electrolyte (Sulfuric acid)	7664-93-9	20 - 44
Antimony	7440-36-0	3 - 5

**Composition comments** All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume. Content composition concentrations will vary with battery type/size.

### 4. First-aid measures

<b>Inhalation</b>	Exposure to contents of an open or damaged battery: Move injured person into fresh air and keep person calm under observation. Get medical attention if any discomfort continues.
<b>Skin contact</b>	Exposure to contents of an open or damaged battery: Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention if irritation develops and persists.
<b>Eye contact</b>	Exposure to contents of an open or damaged battery: Flush thoroughly with water for at least 15 minutes. Hold eyelids open during flushing. If irritation persists, repeat flushing. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Exposure to contents of an open or damaged battery: Rinse mouth thoroughly with water. DO NOT induce vomiting because of danger of aspirating liquid into lungs. Get medical attention immediately.
<b>Most important symptoms/effects, acute and delayed</b>	Under normal conditions of processing and use, exposure to the chemical constituents in this product is unlikely. The battery should not be opened or burned. Exposure to the ingredients contained within or their combustion products could be harmful. Heavy lead exposure may result in central nervous system damage, encephalopathy and damage to the blood-forming (hematopoietic) tissues.
<b>Indication of immediate medical attention and special treatment needed</b>	Treat symptomatically.

**General information** Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Dry chemical, foam, carbon dioxide, water fog.
<b>Unsuitable extinguishing media</b>	Do NOT use water on live electrical circuits.
<b>Specific hazards arising from the chemical</b>	Batteries evolve flammable hydrogen gas during charging and may increase fire risk. Containers may explode when heated.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace.
<b>Fire fighting equipment/instructions</b>	Use standard firefighting procedures and consider the hazards of other involved materials.

**General fire hazards**

Like any sealed container, battery cells may rupture when exposed to excessive heat; this could result in the release of corrosive and flammable materials.

**6. Accidental release measures****Personal precautions, protective equipment and emergency procedures**

Avoid contact with skin.

**Methods and materials for containment and cleaning up**

Neutralize the spilled material before disposal. Sweep up or vacuum up spillage and collect in suitable container for disposal. Dispose of waste and residues in accordance with local authority requirements.

**Environmental precautions**

Prevent runoff from entering drains, sewers, or streams.

**7. Handling and storage****Precautions for safe handling**

In the event of damage resulting in a leak of exposed materials, avoid contact with contents of an open or damaged cell or battery. Keep away from heat, sparks and open flame. Do not allow conductive material to touch the battery terminals. A dangerous short-circuit may occur and cause battery failure and fire.

**Conditions for safe storage, including any incompatibilities**

Store in original tightly closed container. Protect containers from damage. Place cardboard between layers of stacked batteries to avoid damage and short circuits.

**8. Exposure controls/personal protection****Occupational exposure limits****US. ACGIH Threshold Limit Values**

Components	Type	Value	Form
Antimony (CAS 7440-36-0)	TWA	0.5 mg/m3	
Electrolyte (Sulfuric acid) (CAS 7664-93-9)	TWA	0.2 mg/m3	Thoracic fraction.
Lead and lead compounds (inorganic) (CAS 7439-92-1)	TWA	0.05 mg/m3	

**Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)**

Components	Type	Value	Form
Antimony (CAS 7440-36-0)	TWA	0.5 mg/m3	
Electrolyte (Sulfuric acid) (CAS 7664-93-9)	STEL	3 mg/m3	
	TWA	1 mg/m3	
Lead and lead compounds (inorganic) (CAS 7439-92-1)	TWA	0.05 mg/m3	

**Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)**

Components	Type	Value	Form
Antimony (CAS 7440-36-0)	TWA	0.5 mg/m3	
Electrolyte (Sulfuric acid) (CAS 7664-93-9)	TWA	0.2 mg/m3	Mist.
Lead and lead compounds (inorganic) (CAS 7439-92-1)	TWA	0.05 mg/m3	

**Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)**

Components	Type	Value	Form
Antimony (CAS 7440-36-0)	TWA	0.5 mg/m3	
Electrolyte (Sulfuric acid) (CAS 7664-93-9)	TWA	0.2 mg/m3	Thoracic fraction.
Lead and lead compounds (inorganic) (CAS 7439-92-1)	TWA	0.05 mg/m3	

## Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value	Form
Antimony (CAS 7440-36-0)	TWA	0.5 mg/m <sup>3</sup>	
Electrolyte (Sulfuric acid) (CAS 7664-93-9)	TWA	0.2 mg/m <sup>3</sup>	Thoracic fraction.
Lead and lead compounds (inorganic) (CAS 7439-92-1)	TWA	0.05 mg/m <sup>3</sup>	

## Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)

Components	Type	Value
Antimony (CAS 7440-36-0)	TWA	0.5 mg/m <sup>3</sup>
Electrolyte (Sulfuric acid) (CAS 7664-93-9)	STEL	3 mg/m <sup>3</sup>
	TWA	1 mg/m <sup>3</sup>
Lead and lead compounds (inorganic) (CAS 7439-92-1)	TWA	0.05 mg/m <sup>3</sup>

### Biological limit values

#### ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Lead and lead compounds (inorganic) (CAS 7439-92-1)	300 µg/l	Lead	Blood	*

\* - For sampling details, please see the source document.

**Appropriate engineering controls** Provide adequate ventilation. Provide easy access to water supply and eye wash facilities.

#### Individual protection measures, such as personal protective equipment

**Eye/face protection** None under normal conditions. Leak from a damaged or opened battery: Wear safety glasses with side shields (or goggles).

#### Skin protection

**Hand protection** None under normal conditions. Leak from a damaged or opened battery: Wear appropriate chemical resistant gloves.

**Other** None under normal conditions. Leak from a damaged or opened battery: Wear suitable protective clothing. Use of an impervious apron is recommended.

**Respiratory protection** None under normal conditions.

**Thermal hazards** When material is heated, wear gloves to protect against thermal burns.

**General hygiene considerations** Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## 9. Physical and chemical properties

### Appearance

**Physical state** Solid.

**Form** Sulfuric acid, liquid. Lead, solid.

**Color** Not available.

**Odor** Odorless.

**Odor threshold** Not available.

**pH** < 1

**Melting point/freezing point** Not available.

**Initial boiling point and boiling range** 235 - 240 °F (112.78 - 115.56 °C) (Sulfuric acid)

**Flash point** Below room temperature (as hydrogen gas).

**Evaporation rate** < 1 (n-BuAc=1)

**Flammability (solid, gas)** Not available.

**Upper/lower flammability or explosive limits**

**Flammability limit - lower (%)** 4 % (Hydrogen)  
**Flammability limit - upper (%)** 74 % (Hydrogen)

**Vapor pressure** 10 mm Hg

**Vapor density** > 1 ( Air=1)

**Relative density** 1.27 - 1.33

**Solubility(ies)**

**Solubility (water)** 100 % (Sulfuric acid)

**Partition coefficient (n-octanol/water)** Not available.

**Auto-ignition temperature** Not available.

**Decomposition temperature** Not available.

**Viscosity** Not available.

**Other information**

**Specific gravity** 1.27 - 1.33 (H<sub>2</sub>O = 1)

**10. Stability and reactivity**

**Reactivity** The product is non-reactive under normal conditions of use, storage and transport.

**Chemical stability** Stable at normal conditions.

**Possibility of hazardous reactions** Will not occur.

**Conditions to avoid** Overcharging. Ignition sources.

**Incompatible materials** Strong bases. Combustible organic materials. Reducing agents. Finely divided metals. Strong oxidizers. Water.

**Hazardous decomposition products** Sulfur dioxide. Sulfur trioxide. Carbon monoxide. Sulfuric acid. Hydrogen.

**11. Toxicological information****Information on likely routes of exposure**

**Inhalation** Exposure to contents of an open or damaged battery: Dust/mist may irritate respiratory system. Difficulty in breathing. Frequent inhalation of dust over a long period of time increases the risk of developing lung diseases.

**Skin contact** Exposure to contents of an open or damaged battery: Dust/mist may irritate skin.

**Eye contact** Exposure to contents of an open or damaged battery: Dust/mist may irritate the eyes.

**Ingestion** Exposure to contents of an open or damaged battery: May cause discomfort if swallowed.

**Symptoms related to the physical, chemical and toxicological characteristics** Exposure to contents of an open or damaged battery: Dust may irritate the eyes and the respiratory system.

**Information on toxicological effects****Acute toxicity**

Components	Species	Test Results
Electrolyte (Sulfuric acid) (CAS 7664-93-9)		
<b>Acute</b>		
<i>Oral</i>		
LD50	Rat	2140 mg/kg

**Skin corrosion/irritation** Exposure to contents of an open or damaged battery: Causes skin burns.

**Serious eye damage/eye irritation** Exposure to contents of an open or damaged battery: Causes serious eye damage.

**Respiratory or skin sensitization****Canada - Alberta OELs: Irritant**

Antimony (CAS 7440-36-0) Irritant

**Respiratory sensitization** No data available.

<b>Skin sensitization</b>	No data available.
<b>Germ cell mutagenicity</b>	No data available.
<b>Carcinogenicity</b>	The International Agency for Research on Cancer (IARC) has classified "strong inorganic acid mists containing sulfuric acid" as a known human carcinogen, (IARC category 1). This classification applies only to mists containing sulfuric acid and not to sulfuric acid or sulfuric acid solutions.

#### ACGIH Carcinogens

Electrolyte (Sulfuric acid) (CAS 7664-93-9)	A2 Suspected human carcinogen.
Lead and lead compounds (inorganic) (CAS 7439-92-1)	A3 Confirmed animal carcinogen with unknown relevance to humans.

#### Canada - Alberta OELs: Carcinogen category

Electrolyte (Sulfuric acid) (CAS 7664-93-9)	Suspected human carcinogen.
---	-----------------------------

#### Canada - Manitoba OELs: carcinogenicity

LEAD AND INORGANIC COMPOUNDS, AS PB (CAS 7439-92-1)	Confirmed animal carcinogen with unknown relevance to humans.
SULFURIC ACID, WHEN CONTAINED IN STRONG INORGANIC ACID MISTS (CAS 7664-93-9)	Suspected human carcinogen.

#### Canada - Quebec OELs: Carcinogen category

Lead and lead compounds (inorganic) (CAS 7439-92-1)	Detected carcinogenic effect in animals.
---	--

#### IARC Monographs. Overall Evaluation of Carcinogenicity

Electrolyte (Sulfuric acid) (CAS 7664-93-9)	1 Carcinogenic to humans.
Lead and lead compounds (inorganic) (CAS 7439-92-1)	2B Possibly carcinogenic to humans.

<b>Reproductive toxicity</b>	None under normal conditions. Exposure to contents of an open or damaged battery: May damage fertility or the unborn child.
<b>Specific target organ toxicity - single exposure</b>	None under normal conditions. Exposure to contents of an open or damaged battery: Causes damage to organs (Respiratory system).
<b>Specific target organ toxicity - repeated exposure</b>	None under normal conditions. Exposure to contents of an open or damaged battery: May cause damage to organs through prolonged or repeated exposure.
<b>Aspiration hazard</b>	Due to the physical form of the product it is not an aspiration hazard.
<b>Chronic effects</b>	Exposure to contents of an open or damaged battery: Heavy lead exposure may result in central nervous system damage, encephalopathy and damage to the blood-forming (hematopoietic) tissues. Chronic inhalation of sulfuric acid mist may increase the risk of lung cancer.

## 12. Ecological information

<b>Ecotoxicity</b>	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment. Exposure to contents of an open or damaged battery: Very toxic to aquatic life with long lasting effects.
--------------------	--

Components	Species	Test Results
Lead and lead compounds (inorganic) (CAS 7439-92-1)	LC50 Rainbow trout, donaldson trout (Oncorhynchus mykiss)	1.17 mg/l, 96 Hours

<b>Persistence and degradability</b>	The degradation half-life of the product is not known. Lead and its compounds are highly persistent in water.
<b>Bioaccumulative potential</b>	Bioaccumulation of lead occurs in aquatic and terrestrial animals and plants, but very little bioaccumulation occurs through the food chain.
<b>Mobility in soil</b>	If the product enters soil, one or more constituents will or may be mobile and may contaminate groundwater.
<b>Mobility in general</b>	The product is insoluble in water and will spread on water surfaces.
<b>Other adverse effects</b>	None known.

## 13. Disposal considerations

<b>Disposal instructions</b>	Recycle the batteries, as the primary disposal method. Avoid discharge into water courses or onto the ground. Dispose of this material and its container to hazardous or special waste collection point.
<b>Local disposal regulations</b>	Empty containers should be taken to an approved waste handling site for recycling or disposal.
<b>Hazardous waste code</b>	Not regulated.
<b>Waste from residues / unused products</b>	Avoid discharge into water courses or onto the ground.

**Contaminated packaging** Since emptied containers retain product residue, follow label warnings even after container is emptied.

## 14. Transport information

### TDG

**UN number** UN2794  
**UN proper shipping name** BATTERIES, WET, FILLED WITH ACID, electric storage  
**Transport hazard class(es)**  
**Class** 8  
**Subsidiary risk** -  
**Packing group** III  
**Environmental hazards** Not available.  
**Special precautions for user** Not available.

### IATA

**UN number** UN2794  
**UN proper shipping name** Batteries, wet, filled with acid electric storage  
**Transport hazard class(es)**  
**Class** 8  
**Subsidiary risk** -  
**Packing group** -  
**Environmental hazards** Yes  
**ERG Code** 8L  
**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

### IMDG

**UN number** UN2794  
**UN proper shipping name** BATTERIES, WET, FILLED WITH ACID electric storage  
**Transport hazard class(es)**  
**Class** 8  
**Subsidiary risk** -  
**Packing group** -  
**Environmental hazards**  
**Marine pollutant** Yes  
**EmS** F-A, S-B  
**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable.

## 15. Regulatory information

**Canadian regulations** This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

### Controlled Drugs and Substances Act

Not regulated.

### Export Control List (CEPA 1999, Schedule 3)

Not listed.

### Greenhouse Gases

Not listed.

### Precursor Control Regulations

Electrolyte (Sulfuric acid) (CAS 7664-93-9) Class B

### International regulations

#### Stockholm Convention

Not applicable.

#### Rotterdam Convention

Not applicable.

#### Kyoto protocol

Not applicable.

#### Montreal Protocol

Not applicable.

**Basel Convention**

Not applicable.

**International Inventories**

<b>Country(s) or region</b>	<b>Inventory name</b>	<b>On inventory (yes/no)*</b>
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**16. Other Information**

<b>Issue date</b>	24-August-2015
<b>Revision date</b>	02-September-2015
<b>Version #</b>	02

**List of abbreviations**

LD50: Lethal Dose 50%.  
LC50: Lethal Concentration 50%.

**References**

IARC Monographs. Overall Evaluation of Carcinogenicity  
Registry of Toxic Effects of Chemical Substances (RTECS)

**Disclaimer**

The information in this SDS was obtained from sources which we believe are reliable, but no warranty or representation as to its accuracy or completeness is hereby given. Users should consider the information herein only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal, the safety and health of employees and customers and the protection of the environment.