



Lead Acid Battery

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).
Revision Date: 09/18/2017

Supersedes Date: 04/09/2014 Version: 2.1

SECTION 1: IDENTIFICATION

1.1. Product Identifier

Product Form: Mixture

Product Name: Lead Acid Battery

This product is a battery. It contains hazardous substances, which under normal conditions of use are not in contact with the user unless the battery is fractured or intentionally disassembled. This Safety Data Sheet applies specifically to the hazardous substances encased within it.

1.2. Intended Use of the Product

Use Of The Substance/Mixture: Industrial use. For professional use only.

1.3. Name, Address, and Telephone of the Responsible Party

Company

Bacharch, Inc.

621 Hunt Valley Circle

New Kensington, PA 15068

724-334-5760

<http://www.mybacharach.com>

msdsr@mybacharach.com

1.4. Emergency Telephone Number

Emergency Number : 800-424-9300 (CHEMTREC)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture

GHS-US/CA Classification

Met. Corr. 1	H290
Skin Corr. 1A	H314
Eye Dam. 1	H318
Carc. 1B	H350
Repr. 1A	H360
Lact	H362
STOT RE 1	H372

Full text of hazard classes and H-statements : see section 16

2.2. Label Elements

GHS-US/CA Labeling

Hazard Pictograms (GHS-US/CA)



Signal Word (GHS-US/CA)

: Danger

Hazard Statements (GHS-US/CA)

: H290 - May be corrosive to metals.
H314 - Causes severe skin burns and eye damage.
H318 - Causes serious eye damage.
H350 - May cause cancer.
H360 - May damage fertility or the unborn child.
H362 - May cause harm to breast-fed children.
H372 - Causes damage to organs (central nervous system, blood, kidneys) through prolonged or repeated exposure (inhalation, ingestion).

Precautionary Statements (GHS-US/CA)

: P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P234 - Keep only in original container.
P260 - Do not breathe vapors, mist, spray, fumes.

Lead Acid Battery

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

P263 - Avoid contact during pregnancy/while nursing.
P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P280 - Wear protective gloves, protective clothing, and eye protection.
P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 - If exposed or concerned: Get medical advice/attention.
P310 - Immediately call a POISON CENTER or doctor.
P314 - Get medical advice/attention if you feel unwell.
P321 - Specific treatment (see section 4 on this SDS).
P363 - Wash contaminated clothing before reuse.
P390 - Absorb spillage to prevent material damage.
P405 - Store locked up.
P406 - Store in corrosive resistant container with a resistant inner liner.
P501 - Dispose of contents/container in accordance with local, regional, provincial, territorial, national, and international regulations.

2.3. Other Hazards

Exposure may aggravate pre-existing eye, skin, or respiratory conditions. May be corrosive to respiratory tract.

2.4. Unknown Acute Toxicity (GHS-US/CA)

No data available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance

Not applicable

3.2. Mixture

Name	Product Identifier	% *	GHS Ingredient Classification
Lead	(CAS No) 7439-92-1	65 - 75	Carc. 1B, H350 Lact, H362 Repr. 1A, H360 STOT RE 1, H372 Comb. Dust
Sulfuric acid	(CAS No) 7664-93-9	10 - 20	Met. Corr. 1, H290 Skin Corr. 1A, H314 Eye Dam. 1, H318 Aquatic Acute 3, H402
2-Propenenitrile, polymer with 1,3-butadiene and ethenylbenzene	(CAS No) 9003-56-9	5	Comb. Dust
Tin	(CAS No) 7440-31-5	<= 0.5	Comb. Dust
Calcium	(CAS No) 7440-70-2	<= 0.1	Water-react. 2, H261

Full text of H-phrases: see section 16

*Percentages are listed in weight by weight percentage (w/w%) for liquid and solid ingredients. Gas ingredients are listed in volume by volume percentage (v/v%).

SECTION 4: FIRST AID MEASURES

4.1. Description of First-aid Measures

General: The following first aid measures apply in case of exposure to the interior battery components, if the battery is damaged and exposure occurs. Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

Lead Acid Battery

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

Inhalation: When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.

Skin Contact: Remove contaminated clothing. Immediately flush skin with plenty of water for at least 60 minutes. Wash contaminated clothing before reuse. Get immediate medical advice/attention.

Eye Contact: Rinse cautiously with water for at least 60 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.

Ingestion: Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

4.2. Most Important Symptoms and Effects Both Acute and Delayed

General: Exposure to battery contents may result in the following: Causes severe skin burns and eye damage. May cause cancer. May damage fertility or the unborn child. May cause harm to breast-fed children. Causes damage to organs through prolonged or repeated exposure.

Inhalation: May be corrosive to the respiratory tract.

Skin Contact: Causes severe irritation which will progress to chemical burns.

Eye Contact: Causes permanent damage to the cornea, iris, or conjunctiva.

Ingestion: May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

Chronic Symptoms: May cause cancer. May damage fertility or the unborn child. Causes damage to organs (central nervous system, blood, kidneys) through prolonged or repeated exposure (inhalation, ingestion). Lead: Exposure can result in lassitude (weakness, exhaustion), insomnia; facial pallor; anorexia, weight loss, malnutrition; constipation, abdominal pain, colic; anemia; gingival lead line; tremor; encephalopathy; kidney disease; hypertension. Excessive exposure to powdered tin or fumes through inhalation has been known to cause a benign pneumoconiosis called stannosis (which does not cause fibrosis or disability).

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media: Water spray, dry chemical, foam, carbon dioxide.

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard: Not considered flammable but may burn at high temperatures. Vapors from a damaged battery may be flammable.

Explosion Hazard: Risk of explosion by shock, friction, fire or other sources of ignition. Contact with metallic substances may release flammable hydrogen gas.

Reactivity: Substances within this product may be reactive with water, air, form combustible dust concentration in air, can be flammable if released, and cause severe health effects. Thermal decomposition of this product may generate corrosive, and toxic vapors. Avoid extremely high or low temperatures, keep away from incompatible materials. May be corrosive to metals. Contact with metals may evolve flammable hydrogen gas.

5.3. Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Firefighting Instructions: Use water spray or fog for cooling exposed containers. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Carbon oxides (CO, CO₂). Sulfur oxides. Oxides of calcium. Metal oxides.

Other Information: Do not allow run-off from fire fighting to enter drains or water courses.

Reference to Other Sections

Refer to Section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Product itself under normal conditions of use is not considered hazardous, for materials housed within product: Do not get in eyes, on skin, or on clothing. Do not breathe fumes. Do not handle until all safety precautions have been read and understood.

6.1.1. For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protective equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

Lead Acid Battery

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

6.1.2. For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit. Ventilate area.

6.2. Environmental Precautions

Prevent entry to sewers and public waters.

6.3. Methods and Materials for Containment and Cleaning Up

For Containment: Contain solid spills with appropriate barriers and prevent migration and entry into sewers or streams. As an immediate precautionary measure, isolate spill or leak area in all directions.

Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Recover the product by vacuuming, shoveling or sweeping. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill. Absorb spillage to prevent material damage. Cautiously neutralize spilled solid.

6.4. Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Additional Hazards When Processed: Batteries are designed to be recharged. However, improperly charging may cause the battery to flame. Use only approved chargers and procedures. Never disassemble a battery or bypass any safety device. Do not crush, pierce, short (+) and (-) battery terminals with conductive (i.e. metal) goods. Do not directly heat or solder. Do not throw into fire. Do not mix batteries of different types and brands. May be corrosive to metals. May release corrosive vapors.

Precautions for Safe Handling: If the battery is damaged: Do not get in eyes, on skin, or on clothing. Do not breathe dust or fumes. Avoid contact during pregnancy/while nursing. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations. Avoid reversing battery polarity within the battery assembly. To do so may cause cell to flame or to leak.

Storage Conditions: Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials. Store in original container or corrosive resistant and/or lined container.

Incompatible Materials: Strong acids, strong bases, strong oxidizers. Metals. Moisture.

7.3. Specific End Use(s)

Industrial use. For professional use only.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government.

Sulfuric acid (7664-93-9)		
Mexico	OEL TWA (mg/m ³)	1 mg/m ³
USA ACGIH	ACGIH TWA (mg/m ³)	0.2 mg/m ³ (thoracic particulate matter)
USA ACGIH	ACGIH chemical category	Suspected Human Carcinogen contained in strong inorganic acid mists
USA OSHA	OSHA PEL (TWA) (mg/m ³)	1 mg/m ³
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	1 mg/m ³
USA IDLH	US IDLH (mg/m ³)	15 mg/m ³
Alberta	OEL STEL (mg/m ³)	3 mg/m ³
Alberta	OEL TWA (mg/m ³)	1 mg/m ³
British Columbia	OEL TWA (mg/m ³)	0.2 mg/m ³ (Thoracic, contained in strong inorganic acid mists)
Manitoba	OEL TWA (mg/m ³)	0.2 mg/m ³ (thoracic particulate matter)

Lead Acid Battery

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

New Brunswick	OEL STEL (mg/m ³)	3 mg/m ³
New Brunswick	OEL TWA (mg/m ³)	1 mg/m ³
Newfoundland & Labrador	OEL TWA (mg/m ³)	0.2 mg/m ³ (thoracic particulate matter)
Nova Scotia	OEL TWA (mg/m ³)	0.2 mg/m ³ (thoracic particulate matter)
Nunavut	OEL STEL (mg/m ³)	0.6 mg/m ³ (thoracic fraction)
Nunavut	OEL TWA (mg/m ³)	0.2 mg/m ³ (thoracic fraction)
Northwest Territories	OEL STEL (mg/m ³)	0.6 mg/m ³ (thoracic fraction, strong acid mists only)
Northwest Territories	OEL TWA (mg/m ³)	0.2 mg/m ³ (thoracic fraction, strong acid mists only)
Ontario	OEL TWA (mg/m ³)	0.2 mg/m ³ (thoracic)
Prince Edward Island	OEL TWA (mg/m ³)	0.2 mg/m ³ (thoracic particulate matter)
Québec	VECD (mg/m ³)	3 mg/m ³
Québec	VEMP (mg/m ³)	1 mg/m ³
Saskatchewan	OEL STEL (mg/m ³)	0.6 mg/m ³ (thoracic fraction)
Saskatchewan	OEL TWA (mg/m ³)	0.2 mg/m ³ (thoracic fraction)
Yukon	OEL STEL (mg/m ³)	1 mg/m ³
Yukon	OEL TWA (mg/m ³)	1 mg/m ³
Tin (7440-31-5)		
Mexico	OEL TWA (mg/m ³)	2 mg/m ³
Mexico	OEL STEL (mg/m ³)	4 mg/m ³
USA ACGIH	ACGIH TWA (mg/m ³)	2 mg/m ³
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	2 mg/m ³
USA IDLH	US IDLH (mg/m ³)	100 mg/m ³
Alberta	OEL TWA (mg/m ³)	2 mg/m ³
British Columbia	OEL TWA (mg/m ³)	2 mg/m ³
Manitoba	OEL TWA (mg/m ³)	2 mg/m ³
New Brunswick	OEL TWA (mg/m ³)	2 mg/m ³
Newfoundland & Labrador	OEL TWA (mg/m ³)	2 mg/m ³
Nova Scotia	OEL TWA (mg/m ³)	2 mg/m ³
Nunavut	OEL STEL (mg/m ³)	4 mg/m ³ (metal)
Nunavut	OEL TWA (mg/m ³)	2 mg/m ³ (metal)
Northwest Territories	OEL STEL (mg/m ³)	4 mg/m ³ (metal)
Northwest Territories	OEL TWA (mg/m ³)	2 mg/m ³ (metal)
Ontario	OEL TWA (mg/m ³)	2 mg/m ³
Prince Edward Island	OEL TWA (mg/m ³)	2 mg/m ³
Québec	VEMP (mg/m ³)	2 mg/m ³
Saskatchewan	OEL STEL (mg/m ³)	4 mg/m ³
Saskatchewan	OEL TWA (mg/m ³)	2 mg/m ³
Lead (7439-92-1)		
Mexico	OEL TWA (mg/m ³)	0.15 mg/m ³ (dust and fume)
USA ACGIH	ACGIH TWA (mg/m ³)	0.05 mg/m ³
USA ACGIH	ACGIH chemical category	Confirmed Animal Carcinogen with Unknown Relevance to Humans
USA ACGIH	Biological Exposure Indices (BEI)	30 µg/100ml Parameter: Lead - Medium: blood - Sampling time: not critical (Note: Women of child bearing potential, whose blood Pb exceeds 10 µg/dL, are at risk of delivering a child with a blood Pb over the current Centers for Disease Control guideline of 10 µg/dL. If the blood Pb of such children remains elevated, they may be at increased risk of cognitive deficits. The blood Pb of these children should be closely monitored and appropriate steps should be taken to minimize the child's exposure to environmental lead.)

Lead Acid Battery

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

USA OSHA	OSHA PEL (TWA) (mg/m ³)	50 µg/m ³
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	0.050 mg/m ³
USA IDLH	US IDLH (mg/m ³)	100 mg/m ³
Alberta	OEL TWA (mg/m ³)	0.05 mg/m ³
British Columbia	OEL TWA (mg/m ³)	0.05 mg/m ³
Manitoba	OEL TWA (mg/m ³)	0.05 mg/m ³
New Brunswick	OEL TWA (mg/m ³)	0.05 mg/m ³
Newfoundland & Labrador	OEL TWA (mg/m ³)	0.05 mg/m ³
Nova Scotia	OEL TWA (mg/m ³)	0.05 mg/m ³
Nunavut	OEL STEL (mg/m ³)	0.15 mg/m ³
Nunavut	OEL TWA (mg/m ³)	0.05 mg/m ³
Northwest Territories	OEL STEL (mg/m ³)	0.15 mg/m ³
Northwest Territories	OEL TWA (mg/m ³)	0.05 mg/m ³
Ontario	OEL TWA (mg/m ³)	0.05 mg/m ³ (designated substances regulation) 0.05 mg/m ³ (applies to workplaces to which the designated substances regulation does not apply)
Prince Edward Island	OEL TWA (mg/m ³)	0.05 mg/m ³
Québec	VEMP (mg/m ³)	0.05 mg/m ³
Saskatchewan	OEL STEL (mg/m ³)	0.15 mg/m ³
Saskatchewan	OEL TWA (mg/m ³)	0.05 mg/m ³
Yukon	OEL STEL (mg/m ³)	0.45 mg/m ³ (dust and fume)
Yukon	OEL TWA (mg/m ³)	0.15 mg/m ³ (dust and fume)

8.2. Exposure Controls

Appropriate Engineering Controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

Personal Protective Equipment: Not required under normal conditions of use, when handling damaged batteries: Gloves. Protective clothing. Protective goggles. Face shield. Insufficient ventilation: wear respiratory protection.



Materials for Protective Clothing: Not required under normal conditions of use, when handling damaged batteries: Chemically resistant materials and fabrics. Corrosion-proof clothing.

Hand Protection: Not required under normal conditions of use, when handling damaged batteries: Wear protective gloves.

Eye Protection: Not required under normal conditions of use, when handling damaged batteries: Chemical safety goggles and face shield.

Skin and Body Protection: Not required under normal conditions of use, when handling damaged batteries: Wear suitable protective clothing.

Respiratory Protection: Not required under normal conditions of use, when handling damaged batteries: If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

Consumer Exposure Controls: Avoid contact during pregnancy/while nursing

Other Information: When using, do not eat, drink or smoke

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Physical State	: Solid
Appearance	: Not available
Odor	: Not available
Odor Threshold	: Not available
pH	: Not available

Lead Acid Battery

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

Evaporation Rate	: Not available
Melting Point	: Not available
Freezing Point	: Not available
Boiling Point	: Not available
Flash Point	: Not available
Auto-ignition Temperature	: Not available
Decomposition Temperature	: Not available
Flammability (solid, gas)	: Not available
Lower Flammable Limit	: Not available
Upper Flammable Limit	: Not available
Vapor Pressure	: Not available
Relative Vapor Density at 20°C	: Not available
Relative Density	: Not available
Specific Gravity	: Not available
Solubility	: Not available
Partition Coefficient: N-Octanol/Water	: Not available
Viscosity	: Not available

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity: Substances within this product may be reactive with water, air, form combustible dust concentration in air, can be flammable if released, and cause severe health effects. Thermal decomposition of this product may generate corrosive, and toxic vapors. Avoid extremely high or low temperatures, keep away from incompatible materials. May be corrosive to metals. Contact with metals may evolve flammable hydrogen gas.

10.2. Chemical Stability: Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

10.4. Conditions to Avoid: Direct sunlight, extremely high or low temperatures, and incompatible materials. Damaging, puncturing, or opening the battery cell. Do not use unauthorized charger or charging method. Do not deconstruct or disassemble battery or solder battery.

10.5. Incompatible Materials: Strong acids, strong bases, strong oxidizers. Metals. Moisture.

10.6. Hazardous Decomposition Products: None expected under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects - Product

Acute Toxicity (Oral): Not classified

Acute Toxicity (Dermal): Not classified

Acute Toxicity (Inhalation): Not classified

LD50 and LC50 Data: Not available

Skin Corrosion/Irritation: Causes severe skin burns and eye damage.

Eye Damage/Irritation: Causes serious eye damage.

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified

Carcinogenicity: May cause cancer.

Specific Target Organ Toxicity (Repeated Exposure): Causes damage to organs through prolonged or repeated exposure.

Reproductive Toxicity: May damage fertility or the unborn child. May cause harm to breast-fed children.

Specific Target Organ Toxicity (Single Exposure): Not classified

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: May be corrosive to the respiratory tract.

Symptoms/Injuries After Skin Contact: Causes severe irritation which will progress to chemical burns.

Symptoms/Injuries After Eye Contact: Causes permanent damage to the cornea, iris, or conjunctiva.

Symptoms/Injuries After Ingestion: May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

Chronic Symptoms: May cause cancer. May damage fertility or the unborn child. Causes damage to organs (central nervous system, blood, kidneys) through prolonged or repeated exposure (inhalation, ingestion). Lead: Exposure can result in lassitude (weakness,

Lead Acid Battery

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

exhaustion), insomnia; facial pallor; anorexia, weight loss, malnutrition; constipation, abdominal pain, colic; anemia; gingival lead line; tremor; encephalopathy; kidney disease; hypertension. Excessive exposure to powdered tin or fumes through inhalation has been known to cause a benign pneumoconiosis called stannosis (which does not cause fibrosis or disability).

11.2. Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

Sulfuric acid (7664-93-9)	
LD50 Oral Rat	2140 mg/kg
Sulfuric acid (7664-93-9)	
IARC Group	1
OSHA Hazard Communication Carcinogen List	In OSHA Hazard Communication Carcinogen list.
2-Propenenitrile, polymer with 1,3-butadiene and ethenylbenzene (9003-56-9)	
IARC Group	3
Lead (7439-92-1)	
IARC Group	2A
National Toxicology Program (NTP) Status	Reasonably anticipated to be Human Carcinogen.
OSHA Hazard Communication Carcinogen List	In OSHA Hazard Communication Carcinogen list.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecology - General: Not classified.

Sulfuric acid (7664-93-9)	
LC50 Fish 1	500 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [static])
LC50 Fish 2	42 mg/l (Exposure time: 96 h - Species: Gambusia affinis [static])

12.2. Persistence and Degradability

Lead Acid Battery	
Persistence and Degradability	Not established.

12.3. Bioaccumulative Potential

Lead Acid Battery	
Bioaccumulative Potential	Not established.
Sulfuric acid (7664-93-9)	
BCF Fish 1	(no bioaccumulation)

12.4. Mobility in Soil Not available

12.5. Other Adverse Effects

Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste Disposal Recommendations: Dispose of contents/container in accordance with local, regional, provincial, territorial, national, and international regulations

Additional Information: Container may remain hazardous when empty. Continue to observe all precautions.

Ecology - Waste Materials: Avoid release to the environment.

SECTION 14: TRANSPORT INFORMATION

*When shipping follow all applicable regulations and special provisions for each transport agency. The following classifications apply when shipping meets the following special provisions. Classifications may differ from those below depending on the quantity of batteries and how they are packaged, among other factors. Batteries – UN 2800 Wet. Non-Spillable. Electric Storage.

14.1 In Accordance with DOT* Unregulated, meet special provision 49 CFR 173.159 (a)

14.2 In Accordance with IMDG* Unregulated, meet special provision 238

14.3 In Accordance with IATA* Unregulated, meet special provision A48, A67, PI 872

14.4 In Accordance with TDG* Unregulated, meet special provision 39

Lead Acid Battery

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

SECTION 15: REGULATORY INFORMATION

15.1. US Federal Regulations

Lead Acid Battery	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard
Sulfuric acid (7664-93-9)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on the United States SARA Section 302 Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	1000 lb
SARA Section 302 Threshold Planning Quantity (TPQ)	1000 lb
SARA Section 313 - Emission Reporting	1.0 % (acid aerosols including mists, vapors, gas, fog, and other airborne forms of any particle size)
Tin (7440-31-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
2-Propenenitrile, polymer with 1,3-butadiene and ethenylbenzene (9003-56-9)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Inventory Update Reporting Rule, i.e, Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(C))
Calcium (7440-70-2)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Lead (7439-92-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	10 lb no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is >100 µm
SARA Section 313 - Emission Reporting	0.1 %

15.2. US State Regulations

Sulfuric acid (7664-93-9)	
U.S. - California - Proposition 65 - Carcinogens List	WARNING: This product contains chemicals known to the State of California to cause cancer.
Lead (7439-92-1)	
U.S. - California - Proposition 65 - Carcinogens List	WARNING: This product contains chemicals known to the State of California to cause cancer.
U.S. - California - Proposition 65 - Developmental Toxicity	WARNING: This product contains chemicals known to the State of California to cause birth defects.
U.S. - California - Proposition 65 - Reproductive Toxicity - Female	WARNING: This product contains chemicals known to the State of California to cause (Female) reproductive harm.
U.S. - California - Proposition 65 - Reproductive Toxicity - Male	WARNING: This product contains chemicals known to the State of California to cause (Male) reproductive harm.
Sulfuric acid (7664-93-9)	
Strong inorganic acid mists containing sulfuric acid are present on the State of California list of Chemicals Known to the State to Cause Cancer or Reproductive Toxicity (Cal Prop 65) U.S. - California - SCAQMD - Toxic Air Contaminants - Non-Cancer Acute U.S. - California - SCAQMD - Toxic Air Contaminants - Non-Cancer Chronic U.S. - California - Toxic Air Contaminant List (AB 1807, AB 2728) U.S. - Connecticut - Hazardous Air Pollutants - HLVs (30 min) U.S. - Connecticut - Hazardous Air Pollutants - HLVs (8 hr)	

Lead Acid Battery

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Emission Levels (ELs)
U.S. - Idaho - Occupational Exposure Limits - TWAs
U.S. - Illinois - Toxic Air Contaminant Carcinogens
U.S. - Illinois - Toxic Air Contaminants
U.S. - Louisiana - Reportable Quantity List for Pollutants
U.S. - Maine - Air Pollutants - Hazardous Air Pollutants
U.S. - Massachusetts - Allowable Ambient Limits (AALs)
U.S. - Massachusetts - Allowable Threshold Concentrations (ATCs)
U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 1
U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 2
U.S. - Massachusetts - Oil & Hazardous Material List - Reportable Quantity
U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 1
U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 2
RTK - U.S. - Massachusetts - Right To Know List
U.S. - Massachusetts - Threshold Effects Exposure Limits (TEELs)
U.S. - Massachusetts - Toxics Use Reduction Act
U.S. - Michigan - Occupational Exposure Limits - TWAs
U.S. - Michigan - Polluting Materials List
U.S. - Minnesota - Chemicals of High Concern
U.S. - Minnesota - Hazardous Substance List
U.S. - Minnesota - Permissible Exposure Limits - TWAs
U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - 24-Hour
U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - Annual
U.S. - New Jersey - Discharge Prevention - List of Hazardous Substances
U.S. - New Jersey - Environmental Hazardous Substances List
RTK - U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New Jersey - Special Health Hazards Substances List
U.S. - New York - Occupational Exposure Limits - TWAs
U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances
U.S. - North Carolina - Control of Toxic Air Pollutants
U.S. - North Dakota - Air Pollutants - Guideline Concentrations - 8-Hour
U.S. - Ohio - Extremely Hazardous Substances - Threshold Quantities
U.S. - Oregon - Permissible Exposure Limits - TWAs
RTK - U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
RTK - U.S. - Pennsylvania - RTK (Right to Know) List
U.S. - Rhode Island - Air Toxics - Acceptable Ambient Levels - 1-Hour
U.S. - Rhode Island - Air Toxics - Acceptable Ambient Levels - Annual
U.S. - South Carolina - Toxic Air Pollutants - Maximum Allowable Concentrations
U.S. - South Carolina - Toxic Air Pollutants - Pollutant Categories
U.S. - Tennessee - Occupational Exposure Limits - TWAs
U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term
U.S. - Vermont - Permissible Exposure Limits - TWAs
U.S. - Washington - Permissible Exposure Limits - STELs
U.S. - Washington - Permissible Exposure Limits - TWAs
U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 25 Feet to Less Than 40 Feet
U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 40 Feet to Less Than 75 Feet
U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 75 Feet or Greater
U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights Less Than 25 Feet

Tin (7440-31-5)

U.S. - Connecticut - Hazardous Air Pollutants - HLVs (30 min)
U.S. - Connecticut - Hazardous Air Pollutants - HLVs (8 hr)

Lead Acid Battery

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Emission Levels (ELs)
U.S. - Idaho - Occupational Exposure Limits - TWAs
RTK - U.S. - Massachusetts - Right To Know List
U.S. - Minnesota - Groundwater Health Risk Limits
U.S. - Minnesota - Hazardous Substance List
U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - 24-Hour
U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - Annual
RTK - U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New Jersey - Special Health Hazards Substances List
U.S. - North Dakota - Air Pollutants - Guideline Concentrations - 8-Hour
U.S. - Oregon - Permissible Exposure Limits - TWAs
U.S. - California - Safer Consumer Products - Initial List of Candidate Chemicals and Chemical Groups
RTK - U.S. - Pennsylvania - RTK (Right to Know) List
U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term
U.S. - Washington - Permissible Exposure Limits - Skin Designations
U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 25 Feet to Less Than 40 Feet
U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 40 Feet to Less Than 75 Feet
U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 75 Feet or Greater
U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights Less Than 25 Feet

2-Propenenitrile, polymer with 1,3-butadiene and ethenylbenzene (9003-56-9)

U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term

Calcium (7440-70-2)

U.S. - Massachusetts - Oil & Hazardous Material List - Reportable Quantity
RTK - U.S. - Massachusetts - Right To Know List
RTK - U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New Jersey - Special Health Hazards Substances List
RTK - U.S. - Pennsylvania - RTK (Right to Know) List

Lead (7439-92-1)

U.S. - California - Priority Toxic Pollutants - Freshwater Criteria
U.S. - California - Priority Toxic Pollutants - Saltwater Criteria
U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)
U.S. - California - SCAQMD - Toxic Air Contaminants - Carcinogens
U.S. - California - SDAPCD - Toxic Air Contaminants - Carcinogenic Impacts Must Be Calculated
U.S. - California - Toxic Air Contaminant List (AB 1807, AB 2728)
U.S. - Colorado - Hazardous Wastes - Maximum Concentration for the Toxicity Characteristics
U.S. - Colorado - Primary Drinking Water Regulations - Maximum Contaminant Level Goals (MCLGs)
U.S. - Connecticut - Drinking Water Quality Standards - Groundwater Sources
U.S. - Connecticut - Drinking Water Quality Standards - Maximum Contaminant Levels
U.S. - Connecticut - Water Quality Standards - Acute Freshwater Aquatic Life Criteria
U.S. - Connecticut - Water Quality Standards - Acute Saltwater Aquatic Life Criteria
U.S. - Connecticut - Water Quality Standards - Chronic Freshwater Aquatic Life Criteria
U.S. - Connecticut - Water Quality Standards - Chronic Saltwater Aquatic Life Criteria
U.S. - Connecticut - Water Quality Standards - Consumption of Water and Organisms
U.S. - Connecticut - Water Quality Standards - Health Designations
U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities
U.S. - Florida - Drinking Water Standards - Inorganic Contaminants - Maximum Contaminant Levels (MCLs)
U.S. - Idaho - Occupational Exposure Limits - TWAs
U.S. - Illinois - Toxic Air Contaminant Carcinogens
U.S. - Illinois - Toxic Air Contaminants
U.S. - Louisiana - Reportable Quantity List for Pollutants

Lead Acid Battery

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

U.S. - Maine - Air Pollutants - Criteria Pollutants
U.S. - Maine - Air Pollutants - Hazardous Air Pollutants
U.S. - Maine - Chemicals of High Concern
U.S. - Maryland - Surface Water Quality Standards - Acute Freshwater Aquatic Life
U.S. - Maryland - Surface Water Quality Standards - Acute Saltwater Aquatic Life Criteria
U.S. - Maryland - Surface Water Quality Standards - Chronic Freshwater Aquatic Life
U.S. - Maryland - Surface Water Quality Standards - Chronic Saltwater Aquatic Life Criteria
U.S. - Massachusetts - Allowable Ambient Limits (AALs)
U.S. - Massachusetts - Allowable Threshold Concentrations (ATCs)
U.S. - Massachusetts - Drinking Water - Maximum Contaminant Levels (MCLs)
U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 1
U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 2
U.S. - Massachusetts - Oil & Hazardous Material List - Reportable Quantity
U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 1
U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 2
RTK - U.S. - Massachusetts - Right To Know List
U.S. - Massachusetts - Threshold Effects Exposure Limits (TEELs)
U.S. - Massachusetts - Toxics Use Reduction Act
U.S. - Michigan - Polluting Materials List
U.S. - Minnesota - Chemicals of High Concern
U.S. - Minnesota - Chemicals of High Concern - Persistent Bioaccumulative Toxins
U.S. - Minnesota - Hazardous Substance List
U.S. - Missouri - Drinking Water - Maximum Contaminant Levels (MCLs)
U.S. - Montana - Ambient Air Quality Standards
U.S. - Nebraska - Maximum Concentration of Contaminants for the Toxicity Characteristic
U.S. - New Hampshire - Primary Ambient Air Quality Standards (AAQS)
U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - 24-Hour
U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - Annual
U.S. - New Hampshire - Secondary Ambient Air Quality Standards (AAQS)
U.S. - New Jersey - Discharge Prevention - List of Hazardous Substances
U.S. - New Jersey - Environmental Hazardous Substances List
U.S. - New Jersey - Primary Drinking Water Standards - Action Levels - ALs
RTK - U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New Jersey - Special Health Hazards Substances List
U.S. - New Jersey - Water Quality - Ground Water Quality Criteria
U.S. - New Jersey - Water Quality - Practical Quantitation Levels (PQLs)
U.S. - New Mexico - Water Quality - Standards for Ground Water of 10,000 mg/L TDS Concentration or Less
U.S. - New York - Ambient Air Quality Standards
U.S. - New York - Priority Chemical Avoidance List
U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances
U.S. - North Dakota - Air Pollutants - Guideline Concentrations - 8-Hour
U.S. - North Dakota - Ambient Air Quality Standards - Maximum Permissible Concentrations
U.S. - North Dakota - Hazardous Wastes - Maximum Concentration for the Toxicity Characteristic
U.S. - North Dakota - Water Quality Standards - Aquatic Life Acute Value for Classes I, IA, II, III
U.S. - North Dakota - Water Quality Standards - Aquatic Life Chronic Value for Classes I, IA, II, III
U.S. - North Dakota - Water Quality Standards - Human Health Value for Classes I, IA, II
U.S. - Oklahoma - Primary Ambient Air Quality Standards
U.S. - Oklahoma - Secondary Ambient Air Quality Standards
U.S. - Oregon - Permissible Exposure Limits - TWAs
U.S. - Oregon - Priority Persistent Pollutant - Tier I - Persistent Pollutants
U.S. - California - Safer Consumer Products - Initial List of Candidate Chemicals and Chemical Groups
U.S. - Pennsylvania - Beneficial Use of Sewage Sludge by Land Application - Pollutant Ceiling Limits
U.S. - Pennsylvania - Drinking Water - Maximum Contaminant Levels (MCLs)
RTK - U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

Lead Acid Battery

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

RTK - U.S. - Pennsylvania - RTK (Right to Know) List
 U.S. - Rhode Island - Air Toxics - Acceptable Ambient Levels - Annual
 U.S. - Rhode Island - Water Quality Standards - Acute Freshwater Aquatic Life Criteria
 U.S. - Rhode Island - Water Quality Standards - Acute Saltwater Aquatic Life Criteria
 U.S. - Rhode Island - Water Quality Standards - Chronic Freshwater Aquatic Life Criteria
 U.S. - Rhode Island - Water Quality Standards - Chronic Saltwater Aquatic Life Criteria
 U.S. - Tennessee - Ambient Air Quality Standards - Primary Standards
 U.S. - Tennessee - Ambient Air Quality Standards - Secondary Standards
 U.S. - Texas - Effects Screening Levels - Long Term
 U.S. - Texas - Effects Screening Levels - Short Term
 U.S. - Utah - Drinking Water - Maximum Contaminant Levels (MCLs)
 U.S. - Vermont - Hazardous Waste - Hazardous Constituents
 U.S. - Vermont - Hazardous Waste - Maximum Contaminant Concentration for Toxicity
 U.S. - Virginia - Water Quality Standards - Acute Freshwater Aquatic Life
 U.S. - Virginia - Water Quality Standards - Acute Saltwater Aquatic Life
 U.S. - Virginia - Water Quality Standards - Chronic Freshwater Aquatic Life
 U.S. - Virginia - Water Quality Standards - Chronic Saltwater Aquatic Life
 U.S. - Virginia - Water Quality Standards - Public Water Supply Effluent Limits
 U.S. - Washington - Dangerous Waste - Dangerous Waste Constituents List
 U.S. - Washington - Persistent Bioaccumulative Toxins
 U.S. - West Virginia - Water Quality - Groundwater Standards - Ceiling Concentrations
 U.S. - Alaska - Water Quality Standards - Acute Aquatic Life Criteria for Fresh Water
 U.S. - Alaska - Water Quality Standards - Chronic Aquatic Life Criteria for Fresh Water
 U.S. - Alaska - Water Quality Standards - Acute Aquatic Life Criteria for Marine Water
 U.S. - Alaska - Water Quality Standards - Chronic Aquatic Life Criteria for Marine Water
 U.S. - Alaska - Ambient Air Quality Standards
 U.S. - Arkansas - Surface Water Quality Standards - Chronic Aquatic Life Criteria
 U.S. - Arkansas - Surface Water Quality Standards - Acute Aquatic Life Criteria

15.3. Canadian Regulations

Sulfuric acid (7664-93-9)

Listed on the Canadian DSL (Domestic Substances List)

Tin (7440-31-5)

Listed on the Canadian DSL (Domestic Substances List)

2-Propenenitrile, polymer with 1,3-butadiene and ethenylbenzene (9003-56-9)

Listed on the Canadian DSL (Domestic Substances List)

Calcium (7440-70-2)

Listed on the Canadian DSL (Domestic Substances List)

Lead (7439-92-1)

Listed on the Canadian DSL (Domestic Substances List)

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision Date : 01/18/2017

Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200 and Canada's Hazardous Products Regulations (HPR).

GHS Full Text Phrases:

Aquatic Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3
Carc. 1B	Carcinogenicity Category 1B
Comb. Dust	Combustible Dust
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Lact	Reproductive toxicity (Lact.)
Met. Corr. 1	Corrosive to metals Category 1

Lead Acid Battery

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

Repr. 1A	Reproductive toxicity Category 1A
Skin Corr. 1A	Skin corrosion/irritation Category 1A
STOT RE 1	Specific target organ toxicity (repeated exposure) Category 1
Water-react. 2	Substances and mixtures which in contact with water emit flammable gases Category 2
H261	In contact with water releases flammable gases
H290	May be corrosive to metals
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H350	May cause cancer
H360	May damage fertility or the unborn child
H362	May cause harm to breast-fed children
H372	Causes damage to organs through prolonged or repeated exposure
H402	Harmful to aquatic life

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

NA GHS SDS 2015 (Can, US, Mex)