



# Wet filled battery

## Safety Data Sheet

US-SDS according to the federal final rule of hazard communication revised on 2024 (HazCom 2024)  
Issue date: 6/13/2025 Version: 1.0

### SECTION 1: Identification

#### 1.1. Identification

Product form : Mixture  
Product name : Wet filled battery

#### 1.2. Recommended use and restrictions on use

Use of the substance/mixture : Batteries for automotive

#### 1.3. Supplier

Interstate Batteries Inc.  
14221 Dallas PKWY Suite 1000  
Dallas, TX 75254  
T 866-884-4635

#### 1.4. Emergency telephone number

Emergency number : 1-800-255-3924 (24 hours) Chemtel

### SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

##### GHS US classification

Explosive, Division 1.3	Explosive; fire, blast or projection hazard.
Acute toxicity (oral), Category 4	Harmful if swallowed.
Acute toxicity (dermal), Category 4	Harmful in contact with skin.
Acute toxicity (inhalation), Category 4	Harmful if inhaled.
Skin corrosion/irritation, Category 1A	Causes severe skin burns and eye damage.
Serious eye damage/eye irritation, Category 1	Causes serious eye damage.
Carcinogenicity, Category 1A	May cause cancer (if inhaled, if swallowed).
Reproductive toxicity, Category 1A	May damage fertility. May damage the unborn child. (if inhaled, if swallowed).
Reproductive toxicity, Additional category, Effects on or via lactation	May cause harm to breast-fed children.
Specific target organ toxicity — Repeated exposure, Category 2	May cause damage to organs (kidneys, blood, central nervous system) through prolonged or repeated exposure.
Hazardous to the aquatic environment — Acute Hazard, Category 1	Very toxic to aquatic life.
Hazardous to the aquatic environment — Chronic Hazard, Category 1	Very toxic to aquatic life with long lasting effects.

#### 2.2. GHS Label elements, including precautionary statements

##### GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Danger

Hazard statements (GHS US) :

- Explosive; fire, blast or projection hazard
- Harmful if swallowed, in contact with skin or if inhaled
- Causes severe skin burns and eye damage
- May cause cancer (if inhaled, if swallowed)
- May damage fertility. May damage the unborn child. (if inhaled, if swallowed)
- May cause harm to breast-fed children
- May cause damage to organs (kidneys, blood, central nervous system) through prolonged or repeated exposure

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Precautionary statements (GHS US)

Very toxic to aquatic life  
Very toxic to aquatic life with long lasting effects  
: Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
Keep wetted with appropriate material.  
Ground/Bond container and receiving equipment.  
Do not subject to friction, grinding, shock.  
Do not breathe dusts or mists.  
Avoid contact during pregnancy and while nursing.  
Wash hands, forearms and face thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Use only outdoors or in a well-ventilated area.  
Avoid release to the environment.  
Wear protective clothing, eye and face protection.  
If swallowed: Call a doctor, a POISON CENTER if you feel unwell.  
If swallowed: rinse mouth. Do NOT induce vomiting.  
If on skin: Wash with plenty of soap and water.  
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
If inhaled: Remove person to fresh air and keep comfortable for breathing.  
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.  
Call a doctor, a POISON CENTER if you feel unwell.  
Rinse mouth.  
Take off contaminated clothing and wash it before reuse.  
Take off immediately all contaminated clothing and wash it before reuse.  
In case of fire: Explosion risk. Evacuate area. DO NOT fight fire when fire reaches explosives.  
Collect spillage.  
Store in accordance with local regulations on explosives.  
Store locked up.  
Dispose of contents and container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	Conc. (% w/w)
lead	CAS-No.: 7439-92-1	20 – 71
Lead dioxide	CAS-No.: 1309-60-0	≤ 50
Lead sulfate	CAS-No.: 7446-14-2	≤ 50
sulphuric acid ... %	CAS-No.: 7664-93-9	10 – 44
POLYPROPYLENE	CAS-No.: 9003-07-0	≤ 10

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Name	Product identifier	Conc. (% w/w)
Polyvinyl chloride	CAS-No.: 9002-86-2	≤ 4
Silicon dioxide	CAS-No.: 112926-00-8	≤ 1.2
Tin	CAS-No.: 7440-31-5	< 1
Antimony	CAS-No.: 7440-36-0	< 1
Natural rubber	CAS-No.: 9006-04-6	≤ 0.5
Distillates (petroleum), hydrotreated heavy naphthenic	CAS-No.: 64742-52-5	≤ 0.5
arsenic	CAS-No.: 7440-38-2	< 0.1
aluminium powder (stabilized)	CAS-No.: 7429-90-5	< 0.006

The specific chemical\ component identities and/or the exact component percentages of this material may be withheld as trade secrets. This information is made available to health professionals, employees, and designated representatives in accordance with the applicable provisions of 29 CFR 1910.1200 (I)(1). Trace ingredients (if any) are present in < 1% concentration, (< 0.1% for potential carcinogens, mutagen, and reproductive toxicant, respiratory tract and skin sensitizers in addition to oral/ inhalation acute toxicant in category 1 and 2). None of the trace ingredients contribute significant additional hazards at the concentrations that may be present in this product. All pertinent hazard information has been provided in this document, per the requirements of the Federal Occupational Safety and Health Administration Standard (29 CFR 1910.1200), U.S. State equivalents.

### SECTION 4: First-aid measures

#### 4.1. Description of first aid measures

First-aid measures general	: Call a physician immediately.
First-aid measures after inhalation	: If a battery ruptures, move to fresh air in case of accidental inhalation of mist. If breathing has stopped, perform artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately. Call a poison center/doctor/physician if you feel unwell.
First-aid measures after skin contact	: If a battery ruptures, do not rub or scratch exposed skin. If liquid get on the skin, immediately flush the contaminated skin with water for at least 15 minutes. If liquid penetrate through the clothing, immediately remove the clothing and shoes under a safety shower and continue to wash the skin for at least 15 minutes. Get medical attention immediately.
First-aid measures after eye contact	: If a battery ruptures, do not rub or scratch exposed eye. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used. Get medical attention immediately. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
First-aid measures after ingestion	: If solutions of a battery chemicals have been swallowed and the person is conscious, give one glass of water. Vomiting may occur spontaneously, but Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.

#### 4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation	: Not a likely route of exposure. If a battery ruptures, may be harmful or fatal if inhaled in a confined area. May cause severe irritation and burns of the nose, throat and respiratory tract.
Symptoms/effects after skin contact	: Not a likely route of exposure. Direct contact with internal components of a battery can be severely irritating to the skin and may result in redness, swelling, burns and severe skin damage. Skin contact may aggravate an existing dermatitis condition.
Symptoms/effects after eye contact	: Not a likely route of exposure. If a battery ruptures, direct contact with the liquid or exposure to vapors or mists may cause tearing, redness, swelling, corneal damage and irreversible eye damage. Splashes in the eyes will cause severe burns.
Symptoms/effects after ingestion	: Not a likely route of exposure. Causes serious burns of the mouth or perforation of the esophagus or stomach. May be fatal if swallowed.
Chronic symptoms	: May damage fertility, May damage the unborn child.

#### 4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

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### SECTION 5: Fire-fighting measures

#### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.  
Unsuitable extinguishing media : Do not use a heavy water stream.

#### 5.2. Specific hazards arising from the chemical

Fire hazard : If heated: . May release flammable gases. hydrogen.  
Explosion hazard : Explosion risk in case of fire.  
Hazardous decomposition products in case of fire : Hazardous gas/vapors are formed in the event of decomposition (see section 10).

#### 5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Evacuate area. Do not fight fire when fire reaches explosives. Do not enter fire area without proper protective equipment, including respiratory protection.  
Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material-damage.

##### 6.1.1. For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.  
Emergency procedures : No open flames, no sparks, and no smoking. Only qualified personnel equipped with suitable protective equipment may intervene. Do not breathe dust, fume, gas, mist, spray, vapors.

##### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".  
Emergency procedures : Evacuate unnecessary personnel. Stop leak if safe to do so.

#### 6.2. Environmental precautions

Avoid release to the environment. Notify authorities if product enters sewers or public waters.

#### 6.3. Methods and material for containment and cleaning up

For containment : Collect spillage. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak, if possible without risk.  
Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.  
Other information : Dispose of materials or solid residues at an authorized site.

#### 6.4. Reference to other sections

For further information refer to section 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Additional hazards when processed : Not expected to present a significant hazard under anticipated conditions of normal use.

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Precautions for safe handling	: Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Do not subject to grinding, shock, friction. Wear personal protective equipment. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Limit quantities of product at the minimum necessary for handling and limit the number of exposed workers. Provide local exhaust or general room ventilation. Floors, walls and other surfaces in the hazard area must be cleaned regularly. Avoid contact during pregnancy/while nursing. Do not breathe dust, fume, gas, mist, spray, vapors. Do not get in eyes, on skin, or on clothing.
Hygiene measures	: Separate working clothes from town clothes. Launder separately. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures	: Ground/bond container and receiving equipment.
Storage conditions	: Store locked up.
Packaging materials	: Store always product in container of same material as original container.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

<b>Wet filled battery</b>	
No additional information available	
<b>lead (7439-92-1)</b>	
No additional information available	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
Local name	Lead and inorganic compounds, as Pb
ACGIH OEL TWA	0.05 mg/m³
Remark (ACGIH)	TLV® Basis: CNS & PNS impair; hematologic eff. Notations: A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans); BEI
Regulatory reference	ACGIH 2023
<b>USA - ACGIH - Biological Exposure Indices</b>	
Local name	LEAD AND INORGANIC COMPOUNDS
BEI	200 µg/l Parameter: Lead - Medium: blood - Sampling time: Not critical
Remark	Persons applying this BEI® are encouraged to counsel female workers of child-bearing age about the risk of delivering a child with a PbB over the current CDC reference value.
Regulatory reference	ACGIH 2023
<b>sulphuric acid ... % (7664-93-9)</b>	
No additional information available	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
Local name	Sulfuric acid
ACGIH OEL TWA	0.2 mg/m³ (T - Thoracic particulate matter)
Remark (ACGIH)	TLV® Basis: Pulm func. Notations: A2 (Suspected Human Carcinogen. Classification refers to sulfuric acid contained in strong inorganic acid mists)
Regulatory reference	ACGIH 2023

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<b>sulphuric acid ... % (7664-93-9)</b>	
<b>USA - OSHA - Occupational Exposure Limits</b>	
Local name	Sulfuric acid
OSHA PEL TWA	1 mg/m <sup>3</sup>
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
<b>Tin (7440-31-5)</b>	
No additional information available	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
Local name	Tin and inorganic compounds, excluding Tin hydride and Indium tin oxide, as Sn
ACGIH OEL TWA	2 mg/m <sup>3</sup> (I - Inhalable particulate matter)
Remark (ACGIH)	Non fibrous = TLV® Basis: URT irr Fibrous (including whiskers) = TLV® Basis: Mesothelioma; cancer. Notations: A2 (Suspected Human Carcinogen)
Regulatory reference	ACGIH 2023
<b>USA - OSHA - Occupational Exposure Limits</b>	
Local name	Tin
OSHA PEL TWA	2 mg/m <sup>3</sup> (inorganic compounds (except oxides) (as Sn)) 0.1 mg/m <sup>3</sup> (organic compounds (as Sn))
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
<b>arsenic (7440-38-2)</b>	
No additional information available	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
Local name	Arsenic and inorganic compounds, as As
ACGIH OEL TWA	0.01 mg/m <sup>3</sup>
Remark (ACGIH)	TLV® Basis: Lung cancer. Notations: A1 (Confirmed Human Carcinogen); BEI
Regulatory reference	ACGIH 2023
<b>USA - ACGIH - Biological Exposure Indices</b>	
Local name	ARSENIC, ELEMENTAL AND SOLUBLE INORGANIC COMPOUNDS
BEI	35 µg As/L Parameter: Inorganic arsenic plus methylated metabolites - Medium: urine - Sampling time: End of workweek - Notations: B
Regulatory reference	ACGIH 2023
<b>USA - OSHA - Occupational Exposure Limits</b>	
Local name	Arsenic, organic compounds (as As)
OSHA PEL TWA	0.5 mg/m <sup>3</sup>
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
<b>Antimony (7440-36-0)</b>	
No additional information available	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
Local name	Antimony and compounds, as Sb

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<b>Antimony (7440-36-0)</b>	
ACGIH OEL TWA	0.5 mg/m <sup>3</sup>
Remark (ACGIH)	TLV® Basis: Skin & URT irr
Regulatory reference	ACGIH 2023
<b>USA - OSHA - Occupational Exposure Limits</b>	
Local name	Antimony and compounds (as Sb)
OSHA PEL TWA	0.5 mg/m <sup>3</sup>
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
<b>POLYPROPYLENE (9003-07-0)</b>	
No additional information available	
<b>Lead dioxide (1309-60-0)</b>	
No additional information available	
<b>Lead sulfate (7446-14-2)</b>	
No additional information available	
<b>Polyvinyl chloride (9002-86-2)</b>	
No additional information available	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
Local name	Polyvinyl chloride
ACGIH OEL TWA	1 mg/m <sup>3</sup> (R - Respirable particulate matter)
Remark (ACGIH)	TLV® Basis: Pneumoconiosis; LRT irr; pulm func changes. Notations: A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH 2023
<b>aluminium powder (stabilized) (7429-90-5)</b>	
No additional information available	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
Local name	Aluminum, metal and insoluble compounds
ACGIH OEL TWA	1 mg/m <sup>3</sup> (R - Respirable particulate matter)
Remark (ACGIH)	TLV® Basis: Pneumoconiosis; LRT irr; neurotoxicity. Notations: A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH 2025
<b>USA - OSHA - Occupational Exposure Limits</b>	
Local name	Aluminum Metal (as Al)
OSHA PEL TWA	15 mg/m <sup>3</sup> (Total dust) 5 mg/m <sup>3</sup> (Respirable fraction)
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
<b>Silicon dioxide (112926-00-8)</b>	
No additional information available	

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<b>Silicon dioxide (112926-00-8)</b>	
<b>USA - OSHA - Occupational Exposure Limits</b>	
Local name	Silica, amorphous, precipitated and gel
OSHA PEL TWA	20 mppcf
Remark (OSHA)	Table Z-3. For OSHA PEL (TWA): Use formula: (80 mg/m3 / (%SiO2)) for mg/m3. CAS No. source: eCFR Table Z-1.
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-3 Mineral Dusts
<b>Natural rubber (9006-04-6)</b>	
No additional information available	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
Local name	Natural rubber latex, as inhalable allergenic proteins
ACGIH OEL TWA	0.0001 mg/m³ (I - Inhalable particulate matter)
Remark (ACGIH)	TLV® Basis: Resp sens. Notations: Skin; DSEN; RSEN
Regulatory reference	ACGIH 2023
<b>Distillates (petroleum), hydrotreated heavy naphthenic (64742-52-5)</b>	
No additional information available	

### 8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.  
Environmental exposure controls : Avoid release to the environment.

### 8.3. Individual protection measures/Personal protective equipment

**Personal protective equipment:**  
Wear recommended personal protective equipment.

<b>Hand protection:</b>
Protective gloves
<b>Eye protection:</b>
Safety glasses
<b>Skin and body protection:</b>
Wear suitable protective clothing
<b>Respiratory protection:</b>
[In case of inadequate ventilation] wear respiratory protection.

**Personal protective equipment symbol(s):**



## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state : Liquid



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Appearance	: Manufactured article.
Color	: None
Odor	: Electrolyte has a sharp, penetrating, pungent odor.
Odor threshold	: No data available
pH	: < 1 (electrolyte)
Melting point	: ≈ 621.5 °F (327.5°C)
Freezing point	: No data available
Boiling point	: Battery Electrolyte (Acid) - 230 - 233.6 °F (110 - 112 °C) Lead - 3191 °F (1755 °C)
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability	: Flammability Limit Lower- 4.1 % (Hydrogen) Flammability Limit Upper – 74.2 % (Hydrogen) Not applicable.
Vapor pressure	: Battery Electrolyte (Acid) 11.7 (mm Hg @ 20 ° C)
Relative vapor density at 20°C	: No data available
Relative density	: 1.21 – 1.3 Battery Electrolyte (Acid)
Density	: 11.35 g/cm3 Lead
Solubility	: Water: Battery Electrolyte (Acid) is completely soluble in water
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: 1076 °F (580 °C) Hydrogen
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: Not classified.
Oxidizing properties	: No data available.

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Stable under normal conditions of use. On heating or during combustion : Explosive; fire, blast or projection hazard.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

Overcharging. mechanical impacts. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. High temperature. Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

### 10.5. Incompatible materials

Acid: Contact with combustibles and organic materials may cause fire and explosion. Also reacts violently with strong reducing agents, metals, sulfur trioxide gas, strong oxidizers, and water. Contact with metals may produce toxic sulfur dioxide fumes and may release flammable hydrogen gas. Lead compounds: Avoid contact with strong acids, bases, halides, halogenates, potassium nitrate, permanganate, peroxides, nascent hydrogen, and reducing agents.

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. On heating or during combustion : Oxides of lead, lead and/or lead compounds may be released. Sulfuric acid may release sulfur dioxide and/or sulfur trioxide. Can emit highly toxic fumes when heated. Combustion can produce carbon dioxide and carbon monoxide. Will release an explosive hydrogen/oxygen gas mixture.

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### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Acute toxicity (oral) : Harmful if swallowed.  
Acute toxicity (dermal) : Harmful in contact with skin.  
Acute toxicity (inhalation) : Harmful if inhaled.

Wet filled battery	
ATE US (oral)	500 mg/kg body weight
ATE US (dermal)	1100 mg/kg body weight
ATE US (gases)	4500 ppmV/4h
ATE US (vapors)	11 mg/l/4h
ATE US (dust, mist)	1.5 mg/l/4h
lead (7439-92-1)	
LD50 oral rat	> 2000 mg/kg Source: ECHA
LD50 dermal rat	> 2000 mg/kg Source: ECHA
LC50 Inhalation - Rat	> 5.05 mg/l Source: ECHA
sulphuric acid ... % (7664-93-9)	
LD50 oral rat	2140 mg/kg Source: ECHA
LC50 Inhalation - Rat	0.375 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)
Tin (7440-31-5)	
LD50 oral rat	> 2000 mg/kg body weight Animal: rat, Animal sex: female, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method)
LD50 dermal rat	> 2000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal))
LC50 Inhalation - Rat	> 4.75 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), Guideline: EU Method B.2 (Acute Toxicity (Inhalation)), Guideline: EPA OPPTS 870.1300 (Acute inhalation toxicity)
arsenic (7440-38-2)	
ATE US (oral)	100 mg/kg body weight
ATE US (gases)	700 ppmV/4h
ATE US (vapors)	3 mg/l/4h
ATE US (dust, mist)	0.5 mg/l/4h
Antimony (7440-36-0)	
LD50 dermal rabbit	> 8300 mg/kg body weight Animal: rabbit
LC50 Inhalation - Rat	> 5.2 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), Guideline: EU Method B.2 (Acute Toxicity (Inhalation)), Guideline: other:
Lead dioxide (1309-60-0)	
LD50 oral rat	> 2000 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method)
ATE US (oral)	500 mg/kg body weight
ATE US (gases)	4500 ppmV/4h

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<b>Lead dioxide (1309-60-0)</b>	
ATE US (vapors)	11 mg/l/4h
ATE US (dust, mist)	1.5 mg/l/4h
<b>Lead sulfate (7446-14-2)</b>	
ATE US (oral)	500 mg/kg body weight
ATE US (gases)	4500 ppmV/4h
ATE US (vapors)	11 mg/l/4h
ATE US (dust, mist)	1.5 mg/l/4h
<b>aluminium powder (stabilized) (7429-90-5)</b>	
LD50 oral rat	> 15900 mg/kg Source: ECHA
LC50 Inhalation - Rat	> 0.888 mg/l air Animal: rat, Animal sex: male, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), Remarks on results: other:
<b>Silicon dioxide (112926-00-8)</b>	
LD50 oral rat	> 3300 mg/kg Source: ECHA
LD50 dermal rat	> 5000 mg/kg Source: ECHA
LC50 Inhalation - Rat	> 5000 mg/kg
<b>Distillates (petroleum), hydrotreated heavy naphthenic (64742-52-5)</b>	
LD50 oral rat	> 5000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
Skin corrosion/irritation	: Causes severe skin burns. pH: < 1 (electrolyte)
Serious eye damage/irritation	: Causes serious eye damage. pH: < 1 (electrolyte)
Respiratory or skin sensitization	: Respiratory sensitization: Not classified. Skin sensitization: Not classified.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: May cause cancer (if inhaled, if swallowed).
<b>lead (7439-92-1)</b>	
IARC group	2A - Probably carcinogenic to humans
National Toxicity Program (NTP) Status	Reasonably anticipated to be Human Carcinogen
<b>sulphuric acid ... % (7664-93-9)</b>	
IARC group	1 - Carcinogenic to humans
National Toxicity Program (NTP) Status	Known Human Carcinogens
<b>arsenic (7440-38-2)</b>	
IARC group	1 - Carcinogenic to humans
National Toxicity Program (NTP) Status	Known Human Carcinogens
<b>POLYPROPYLENE (9003-07-0)</b>	
IARC group	3 - Not classifiable
<b>Lead sulfate (7446-14-2)</b>	
IARC group	2A - Probably carcinogenic to humans

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<b>Polyvinyl chloride (9002-86-2)</b>	
IARC group	3 - Not classifiable
<b>Silicon dioxide (112926-00-8)</b>	
IARC group	3 - Not classifiable
Reproductive toxicity	: May damage fertility. May damage the unborn child. (if inhaled, if swallowed). May cause harm to breast-fed children.
<b>Antimony (7440-36-0)</b>	
NOAEL (animal/female, F0/P)	1879 mg/kg body weight Animal: rat, Animal sex: female
<b>aluminium powder (stabilized) (7429-90-5)</b>	
NOAEL (animal/male, F0/P)	1000 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
STOT-single exposure	: Not classified
STOT-repeated exposure	: May cause damage to organs (kidneys, blood, central nervous system) through prolonged or repeated exposure.
<b>lead (7439-92-1)</b>	
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.
<b>Lead dioxide (1309-60-0)</b>	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
<b>Lead sulfate (7446-14-2)</b>	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
<b>aluminium powder (stabilized) (7429-90-5)</b>	
LOAEC (inhalation, rat, dust/mist/fume, 90 days)	0.05 mg/l air Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study)
NOAEL (subchronic,oral,animal/male,90 days)	1034 mg/kg body weight Animal: dog, Animal sex: male, Guideline: OECD Guideline 409 (Repeated Dose 90-Day Oral Toxicity Study in Non-Rodents)
NOAEL (subchronic,oral,animal/female,90 days)	1087 mg/kg body weight Animal: dog, Animal sex: female, Guideline: OECD Guideline 409 (Repeated Dose 90-Day Oral Toxicity Study in Non-Rodents)
<b>Distillates (petroleum), hydrotreated heavy naphthenic (64742-52-5)</b>	
LOAEL (oral, rat, 90 days)	125 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
NOAEC (inhalation, rat, dust/mist/fume, 90 days)	> 0.98 mg/l air Animal: rat, Guideline: OECD Guideline 412 (Subacute Inhalation Toxicity: 28-Day Study)
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.
Aspiration hazard	: Not classified
Viscosity, kinematic	: No data available
Symptoms/effects after inhalation	: Not a likely route of exposure. If a battery ruptures, may be harmful or fatal if inhaled in a confined area. May cause severe irritation and burns of the nose, throat and respiratory tract.
Symptoms/effects after skin contact	: Not a likely route of exposure. Direct contact with internal components of a battery can be severely irritating to the skin and may result in redness, swelling, burns and severe skin damage. Skin contact may aggravate an existing dermatitis condition.
Symptoms/effects after eye contact	: Not a likely route of exposure. If a battery ruptures, direct contact with the liquid or exposure to vapors or mists may cause tearing, redness, swelling, corneal damage and irreversible eye damage. Splashes in the eyes will cause severe burns.

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Symptoms/effects after ingestion : Not a likely route of exposure. Causes serious burns of the mouth or perforation of the esophagus or stomach. May be fatal if swallowed.

Chronic symptoms : May damage fertility, May damage the unborn child.

### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - general : Very toxic to aquatic life with long lasting effects.

<b>lead (7439-92-1)</b>	
LC50 - Fish [1]	1170 µg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
LC50 - Fish [2]	107 µg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
<b>sulphuric acid ... % (7664-93-9)</b>	
LC50 - Fish [1]	16 – 28 mg/l Source: ECHA, NCIS
EC50 - Crustacea [1]	> 100 mg/l Source: ECHA
NOEC (chronic)	0.15 mg/l Test organisms (species): other:
NOEC chronic fish	0.31 mg/l Test organisms (species): Salvelinus fontinalis
<b>Tin (7440-31-5)</b>	
LC50 - Fish [1]	> 12.4 µg/l Test organisms (species): Pimephales promelas
<b>arsenic (7440-38-2)</b>	
LC50 - Fish [1]	12.6 mg/l Test organisms (species): Pimephales promelas
LC50 - Fish [2]	10.3 mg/l Test organisms (species): Morone saxatilis
LOEC (chronic)	1.32 mg/l Test organisms (species): Daphnia magna Duration: '28 d'
<b>Antimony (7440-36-0)</b>	
LC50 - Fish [1]	14.4 mg/l Test organisms (species): Pimephales promelas
LC50 - Fish [2]	6.9 mg/l Test organisms (species): other:
<b>Silicon dioxide (112926-00-8)</b>	
LC50 - Fish [1]	10000 mg/l Source: ECHA

#### 12.2. Persistence and degradability

No additional information available

#### 12.3. Bioaccumulative potential

<b>lead (7439-92-1)</b>	
Partition coefficient n-octanol/water (Log Pow)	2.98 Source: SRC
<b>sulphuric acid ... % (7664-93-9)</b>	
Partition coefficient n-octanol/water (Log Pow)	-2.2 Source: HSDB
<b>Lead sulfate (7446-14-2)</b>	
Partition coefficient n-octanol/water (Log Pow)	1.13 Source: Ecological Structure Activity RelationshipsECOSAR

#### 12.4. Mobility in soil

No additional information available

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### 12.5. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Regional waste regulation	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations	: Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	: Disposal must be done according to official regulations.
Additional information	: Do not re-use empty containers.

## SECTION 14: Transport information

In accordance with DOT / IMDG / IATA

### 14.1. UN number

UN-No. (DOT)	: UN2794
UN-No. (IMDG)	: 2794
UN-No. (IATA)	: 2794

### 14.2. UN proper shipping name

Proper Shipping Name (DOT)	: Batteries, wet, filled with acid
Proper Shipping Name (IMDG)	: BATTERIES, WET, FILLED WITH ACID
Proper Shipping Name (IATA)	: Batteries, wet, filled with acid

### 14.3. Transport hazard class(es)

#### DOT

Transport hazard class(es) (DOT)	: 8
Hazard labels (DOT)	: 8



#### IMDG

Transport hazard class(es) (IMDG)	: 8
Hazard labels (IMDG)	: 8



#### IATA

Transport hazard class(es) (IATA)	: 8
Hazard labels (IATA)	: 8



### 14.4. Packing group

Packing group (DOT)	: Not applicable
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Packing group (IMDG) : Not applicable  
Packing group (IATA) : Not applicable

### 14.5. Environmental hazards

Dangerous for the environment : Yes  
Marine pollutant : Yes



Other information : No supplementary information available.

### 14.6. Special precautions for user

#### DOT

UN-No. (DOT) : UN2794  
DOT Special Provisions (49 CFR 172.102) : A51 - When transported by cargo-only aircraft, an oxygen generator must conform to the provisions of an approval issued under Special Provision 60 and be contained in a packaging prepared and originally offered for transportation by the approval holder.  
DOT Packaging Exceptions (49 CFR 173.xxx) : 159  
DOT Packaging Non Bulk (49 CFR 173.xxx) : 159  
DOT Packaging Bulk (49 CFR 173.xxx) : 159  
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 30 kg  
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : No Limit  
DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.  
DOT Vessel Stowage Other : 53 - Stow "separated from" alkaline compounds, 58 - Stow "separated from" cyanides, 146 - Category B stowage applies for unit loads in open cargo transport units.

#### IMDG

Special provision (IMDG) : 295  
Limited quantities (IMDG) : 1 L  
Excepted quantities (IMDG) : E0  
Packing instructions (IMDG) : P801  
EmS-No. (Fire) : F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE  
EmS-No. (Spillage) : S-B - SPILLAGE SCHEDULE Bravo - CORROSIVE SUBSTANCES  
Stowage category (IMDG) : A  
Properties and observations (IMDG) : Metal plates immersed in acid electrolyte in a glass, hard rubber or plastics receptacle. When electrically charged, may cause fire through short-circuiting of terminals. Acid electrolyte is corrosive to most metals. Cause burns to skin, eyes and mucous membranes. Used batteries being transported for disposal or reclamation should be carefully checked prior to shipment to ensure the integrity of each battery and its suitability for transport.

#### IATA

PCA Excepted quantities (IATA) : E0  
PCA Limited quantities (IATA) : Forbidden  
PCA limited quantity max net quantity (IATA) : Forbidden  
PCA packing instructions (IATA) : 870  
PCA max net quantity (IATA) : 30kg  
CAO packing instructions (IATA) : 870  
CAO max net quantity (IATA) : 400kg  
Special provision (IATA) : A51, A164, A183, A802  
ERG code (IATA) : 8L

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

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### SECTION 15: Regulatory information

#### 15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory, except for:		
Silicon dioxide	CAS-No. 112926-00-8	≤ 1.2%
Natural rubber	CAS-No. 9006-04-6	≤ 0.5%

This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

<b>lead (7439-92-1)</b>	
CERCLA RQ	10 lb

<b>sulphuric acid ... % (7664-93-9)</b>	
CERCLA RQ	1000 lb
RQ (Reportable quantity, section 304 of EPA's List of Lists)	1000 lb
SARA Section 302 Threshold Planning Quantity (TPQ)	1000 lb

<b>arsenic (7440-38-2)</b>	
CERCLA RQ	1 lb

<b>Antimony (7440-36-0)</b>	
CERCLA RQ	5000 lb

<b>Lead sulfate (7446-14-2)</b>	
CERCLA RQ	10 lb

#### 15.2. International regulations

<b>lead (7439-92-1)</b>	
Listed on IARC (International Agency for Research on Cancer) Listed as carcinogen on NTP (National Toxicology Program)	

<b>sulphuric acid ... % (7664-93-9)</b>	
Listed as carcinogen on NTP (National Toxicology Program) Listed on IARC (International Agency for Research on Cancer)	

<b>arsenic (7440-38-2)</b>	
Listed on IARC (International Agency for Research on Cancer) Listed as carcinogen on NTP (National Toxicology Program)	



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### 15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

Component	State or local regulations
lead(7439-92-1)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - New York City - Right to Know Hazardous Substances List; U.S. - Pennsylvania - RTK (Right to Know) List
sulphuric acid ... %(7664-93-9)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - New York City - Right to Know Hazardous Substances List; U.S. - Pennsylvania - RTK (Right to Know) List
Tin(7440-31-5)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - New York City - Right to Know Hazardous Substances List; U.S. - Pennsylvania - RTK (Right to Know) List
arsenic(7440-38-2)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - New York City - Right to Know Hazardous Substances List; U.S. - Pennsylvania - RTK (Right to Know) List
Antimony(7440-36-0)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - New York City - Right to Know Hazardous Substances List; U.S. - Pennsylvania - RTK (Right to Know) List
Lead dioxide(1309-60-0)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - New York City - Right to Know Hazardous Substances List
Lead sulfate(7446-14-2)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - New York City - Right to Know Hazardous Substances List; U.S. - Pennsylvania - RTK (Right to Know) List
Polyvinyl chloride(9002-86-2)	U.S. - New Jersey - Right to Know Hazardous Substance List
aluminium powder (stabilized)(7429-90-5)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - New York City - Right to Know Hazardous Substances List; U.S. - Pennsylvania - RTK (Right to Know) List
Silicon dioxide(112926-00-8)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List

### SECTION 16: Other information

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ICSDS\_SDS\_USA

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.