



Proud to be 100% Employee-Owned!

98 E Canal Street  
PO Box 766  
Wabash, IN 46992



bulldog-battery.com



(800) 443-3492



(260) 563-8245

## Industrial Lead Acid Battery SAFETY DATA SHEET (SDS)

*Meets the Requirements of OSHA Standard 29 CFR 1910.1200 Hazard Communication and EPA Supplier Notification Requirements under Section 313 of the Emergency Planning and Community Right-to-Know Act.*

### SECTION 1 – IDENTIFICATION

<b>PRODUCT NAME:</b>	Industrial Lead Acid Battery, Wet	<b>RECOMMENDED USE/ AREA OF APPLICATION:</b>	Electric Storage Battery
	<b>Bulldog Battery Corporation</b>	<b>PRODUCT DESCRIPTION:</b>	Industrial Battery, Traction Battery, Stationary Battery, Deep Cycle Battery
<b>MANUFACTURER:</b>	98 E Canal Street Wabash, IN 46992 (800) 443-3492	<b>EMERGENCY TELEPHONE NO.:</b>	<b>CHEMTREC DOMESTIC (24/7):</b> +1-800-424-9300 <b>CHEMTREC INTL (24/7):</b> 703-527-3877

### SECTION 2 – HAZARD IDENTIFICATION

<b>Hazard Classification:</b>	Acute toxicity, oral – Category 4 Acute toxicity, inhalation – Category 4 Skin corrosion/irritation – Category 1A Serious eye damage/eye irritation – Category 1 Carcinogenicity – Category 1A Reproductive toxicity – Category 1A Reproductive toxicity – Effects on or via lactation Specific target organ toxicity, single exposure – Category 1 Specific target organ toxicity, single exposure – Category 3 Specific target organ toxicity, repeated – Category 1		
<b>Signal Word:</b>	<b>Danger</b>		



<b>Hazard Statements:</b>	Harmful if swallowed, Harmful if inhaled, 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, Causes damage to organs through prolonged or repeated exposure, May cause respiratory irritation, Very toxic to aquatic life with long-lasting effects.
<b>Precautionary Statements:</b>	<p><i>Prevention:</i> Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not breathe dust/mist/vapors. Do not eat, drink or smoke when using this product. Avoid contact during pregnancy/while nursing. Wear protective gloves/protective clothing/eye protection/face protection. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Avoid release to the environment.</p> <p><i>Response:</i> If swallowed: Rinse mouth. Do NOT induce vomiting. 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. Immediately call a poison center/doctor. Wash contaminated clothing before reuse. Collect spillage.</p> <p><i>Storage:</i> Store in a well-ventilated place. Keep container tightly closed.</p> <p><i>Disposal:</i> Dispose of contents in accordance with local/regional/national regulations (see Section 13 for specifics).</p>
<b>Other Hazards:</b>	None known.

**SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS**

<b>Component:</b>	<b>CAS No:</b>	<b>Weight %</b>
Lead and Lead Compounds	7439-92-1	60 – 80%
Electrolyte (Sulfuric Acid)	7664-93-9	5 – 20%
Antimony	7440-36-0	2 – 10%

Any concentrations shown as a range is to protect confidentiality or is due to batch variation.

**Content composition concentrations will vary with battery type and size.**

**SECTION 4 – FIRST AID MEASURES**

<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>Inhalation:</b>	Exposure to contents of an open or damaged battery: Move injured person into fresh air and keep person 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>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, if necessary:</b>	Treat symptomatically.

**SECTION 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>Hazardous thermal decomposition products</b>	Batteries generate flammable hydrogen gas during charging and operation of batteries and may increase fire risk. Containers may explode when heated.
<b>Special protective actions for Firefighters</b>	In case of fire do not breathe fumes. Move container from fire area if it can be done without risk.
<b>Special protective equipment 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.

**SECTION 6 – ACCIDENTAL RELEASE MEASURES**

**Personal Precautions, Protective Equipment and Emergency Procedures**

Avoid contact with skin.

**Environmental Precautions**

Prevent runoff from entering drains, sewers, or streams.



Methods and Material for Containment and Clean-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.

SECTION 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. Pregnant or breastfeeding women must not handle this product.

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.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limit Values:

Component:	CAS No:	OSHA PEL (8-HR TWA)	ACGIH TLV (8-HR TWA)	NIOSH REL (8-HR TWA)
Lead and lead compounds	7439-92-1	0.05 mg/m <sup>3</sup>	0.05 mg/m <sup>3</sup>	0.05 mg/m <sup>3</sup>
Antimony	7440-36-0	0.05 mg/m <sup>3</sup>	0.05 mg/m <sup>3</sup>	0.05 mg/m <sup>3</sup>
Electrolyte (Sulfuric acid)	7664-93-9	1 mg/m <sup>3</sup>	0.02 mg/m <sup>3</sup>	1 mg/m <sup>3</sup>

Appropriate Engineering Controls:

Provide adequate ventilation. Provide easy access to water supply and eye wash facilities.

Personal Protective Equipment (PPE):

Wear safety glasses with side shields (or goggles) and a face shield, Wear appropriate chemical resistant gloves. Glove material: Nitrile rubber Layer thickness: 0.152 or 0.381 mm Breakthrough time: 240 or 480 min. Suitable gloves can be recommended by the glove supplier. Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Individual Protection Measures

Wash thoroughly after handling and before eating, drinking, or smoking.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Physical State Solid  
Form Sulphuric acid, liquid. Lead, solid.  
Color Not available.

Upper Flammability or Explosive Limits: 74 % (Hydrogen)

Odor: Odorless.

Vapor Pressure: 10 mm Hg



## Industrial Lead Acid Battery

## Safety Data Sheet

<b>Odor threshold:</b>	Not determined.	<b>Vapor Density:</b>	> 1 ( Air=1)
<b>pH:</b>	< 1	<b>Relative Density:</b>	1.27 - 1.33
<b>Melting point/ Freezing Point:</b>	Not determined.	<b>Solubility(ies):</b>	100 % (Sulfuric acid)
<b>Boiling Point &amp; Range:</b>	235 - 240 °F (112.8 - 115.6 °C) (Sulfuric acid)	<b>Partition coefficient: n- octanol/water:</b>	Not determined.
<b>Flash Point:</b>	Below room temperature (as hydrogen gas).	<b>Autoignition Temperature:</b>	Not determined.
<b>Evaporation Rate:</b>	< 1 (n-BuAc=1)	<b>Decomposition temperature:</b>	Not determined.
<b>Lower Flammability or Explosive Limits:</b>	4 % (Hydrogen)	<b>Viscosity:</b>	Not determined.

### SECTION 10 – STABILITY AND REACTIVITY

<b>Reactivity:</b>	The product is non-reactive under normal conditions of use, storage and transport.
<b>Chemical Stability:</b>	Stable under normal conditions.
<b>Possibility of Hazardous reactions:</b>	Will not occur.
<b>Conditions to Avoid:</b>	Overcharging. Ignition sources.
<b>Incompatible Materials:</b>	Strong bases. Combustible organic materials. Reducing agents. Finely divided metals. Strong oxidizers. Water.
<b>Hazardous Decomposition Products:</b>	Sulfur dioxide. Sulfur trioxide. Carbon monoxide. Sulfuric acid. Hydrogen.

### SECTION 11 – TOXICOLOGICAL INFORMATION

<b>Likely Routes of Exposure:</b>	<b>Eye Contact:</b>	Exposure to contents of an open or damaged battery: Causes severe eye burns.
	<b>Inhalation:</b>	Exposure to contents of an open or damaged battery: Harmful if inhaled. Dust may irritate respiratory system. Difficulty in breathing. Frequent inhalation of dust over a long period of time increases the risk of developing lung diseases.
	<b>Skin Contact:</b>	Exposure to contents of an open or damaged battery: Causes skin burns.
	<b>Ingestion:</b>	Exposure to contents of an open or damaged battery: Harmful if swallowed.



**Symptoms related to the physical, chemical and toxicological characteristics:**

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.

Exposure to contents of an open or damaged battery: Harmful if inhaled or swallowed.

**Information on toxicological effects:**

Components	Species	Test Results
Electrolyte (Sulfuric acid) (CAS 7664-93-9)	LD50 Rat	2140 mg/kg

**Skin corrosion / irritation:**

Exposure to contents of an open or damaged battery: Causes severe skin burns.

**Eye damage / irritation:**

Exposure to contents of an open or damaged battery: Causes serious eye damage.

**Respiratory / skin sensitization:**

Product: No Data Available.

**Mutagenicity:**

Product: No Data Available.

**Carcinogenicity:**

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.

**Reproductive toxicity:**

None under normal conditions. Exposure to contents of an open or damaged battery: May cause harm to breastfed babies. May damage fertility or the unborn child.

**STOT – single exposure:**

None under normal conditions. Exposure to contents of an open or damaged battery: Causes damage to organs (respiratory system). May cause respiratory irritation.

**STOT – repeated exposure:**

None under normal conditions. Exposure to contents of an open or damaged battery: Causes damage to organs (respiratory system) through prolonged or repeated exposure.

**Aspiration hazard:**

Due to the physical form of the product it is not an aspiration hazard.

**Chronic effects:**

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.



**SECTION 12 – ECOLOGICAL INFORMATION**

None under normal conditions. Exposure to contents of an open or damaged battery: Very toxic to aquatic life with long lasting effects.

**Ecotoxicity:**

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

**Persistence and degradability:**

The degradation half-life of the product is not known. Lead and its compounds are highly persistent in water.

**Bioaccumulative potential:**

Bioaccumulation of lead occurs in aquatic and terrestrial animals and plants, but very little bioaccumulation occurs through the food chain.

**Mobility in soil:**

If the product enters soil, one or more constituents will or may be mobile and may contaminate groundwater.

**Mobility in general:**

The product is insoluble in water and will spread on water surfaces.

**Other adverse effects:**

No data available.

**SECTION 13 – DISPOSAL CONSIDERATIONS**

**Disposal methods**

Recycle the batteries as the primary disposal method. Neutralize electrolyte/sulfuric acid. Avoid discharge into water courses or onto the ground. Do not contaminate ponds, waterways or ditches with chemical or used container.

**Packaging disposal:**

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

**SECTION 14 – TRANSPORT INFORMATION**

**DOT (49 CFR 172.101):**

Subject to DOT regulations.

**UN number:**

UN2794.

**UN proper shipping name:**

Batteries, wet, filled with acid, electric storage.

**Hazard class:**

8.

**Packing group:**

Not applicable.

**Marine pollutant:**

No.

**Packaging exceptions:**

159.

**Transport in bulk:**

Not applicable for product as supplied, according to Annex II of MARPOL 73/78 and the IBC Code.

**Ocean Shipment (IMDG):**

Subject to IMDG code.

**EmS:**

F-A, S-B.



**Air shipment (IATA):** Subject to IATA regulations.  
**ERG Code:** 8L.  
**Special precautions:** Read safety instructions, SDS and emergency procedures before handling.

**SECTION 15 – REGULATORY INFORMATION**

Contents of this SDS comply with OSHA Hazard Communication Standard 29 CFR 1910.1200.

**US Federal Regulations:** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. Hazardous Chemical Reporting Requirements apply when an Extremely Hazardous Substance is present at a facility in an amount equal to or exceeding 500 pounds or the Threshold Planning Quantity, whichever is lower per 40 CFR 370.10(a)(1)

**TSCA Status:** TSCA Section 8b – Inventory Status: All chemicals comprising this product are either exempt or listed on the TSCA Inventory. TSCA Section 12b (40 CFR Part 707.60(b)) No notice of export will be required for articles, except PCB articles, unless the Agency so requires in the context of individual section 5, 6, or 7 actions. TSCA Section 13 (40 CFR Part 707.20): No import certification required (EPA 305-B-99-001, June 1999, Introduction to the Chemical Import Requirements of the Toxic Substances Control Act, Section IV.A).

**RCRA:** Spent Lead Acid Batteries are subject to streamlined handling requirements when managed in compliance with 40 CFR section 266.80 or 40 CFR part 273. Waste sulfuric acid is a characteristic hazardous waste; EPA hazardous waste number D002 (corrosivity) and D008 (lead). Sulfuric acid is a listed "Extremely Hazardous Substance" under EPCRA, with a Threshold Planning Quantity (TPQ) of 1,000 lbs.

**SARA 302:** EPCRA Section 302 notification is required if 1000 lbs or more of sulfuric acid is present at one site (40 CFR 370.10). For more information consult 40 CFR Part 355. The quantity of sulfuric acid will vary by battery type.

**SARA 304:** Reportable Quantity (RQ) for spilled 100% sulfuric acid under CERCLA (Superfund) and EPCRA (Emergency Planning and Community Right to Know Act) is 1,000 lbs. State and local reportable quantities for spilled sulfuric acid may vary

**SARA 311/312 hazards:** EPCRA Section 312 Tier Two reporting is required for non-automotive batteries if sulfuric acid is present in quantities of 500 lbs or more and/or if lead is present in quantities of 10,000 lbs or more. For more information consult 40 CFR 370.10 and 40 CFR 370.40.





40 CFR section 372.38 (b) states: If a toxic chemical is present in an article at a covered facility, a person is not required to consider the quantity of the toxic chemical present in such article when determining whether an applicable threshold has been met under § 372.25, § 372.27, or § 372.28 or determining the amount of release to be reported under § 372.30. This exemption applies whether the person received the article from another person or the person produced the article. However, this exemption applies only to the quantity of the toxic chemical present in the article.

Supplier Notification:

This product contains toxic chemicals, which may be reportable under EPCRA Section 313 Toxic Chemical Release Inventory (Form R) requirements. If you are a manufacturing facility under SIC codes 20 through 39, the following information is provided to enable you to complete the required reports:

SARA 313:

Toxic Chemical	CAS Number	Approximate % by Wt.
Lead and Lead Compounds	7439-92-1	60 – 80%
Electrolyte (Sulfuric Acid)	7664-93-9	5 – 20%
Antimony	7440-36-0	2 – 10%

See 40 CRG Part 370 for more details.

If you distribute this product to other manufacturers in SIC Codes 20 through 39, this information must be provided with the first shipment of each calendar year. The Section 313 supplier notification requirement does not apply to batteries, which are "consumer products".

WARNING: This product contains chemicals known to the State of California to cause cancer:

California Proposition 65:

Lead, CAS 7439-92-1, 34%

SECTION 16 – OTHER INFORMATION

NFPA:



HMIS:

HEALTH	3
FLAMMAILITY	0
REACTIVITY	2
PERSONAL PROTECTION	X



### Abbreviations and acronyms:

ACGIH – American Conference of Governmental Industrial Hygienists  
CAS – Chemical Abstracts Service  
CFR – Code of Federal Regulations  
DOT – Department of Transportation  
GHS – Globally Harmonized System  
HMIS – Hazardous Materials Identification System  
IATA – International Air Transport Association  
IARC – International Agency for Research on Cancer  
IBC – Intermediate Bulk Container  
IMDG – International Maritime Dangerous Goods  
LD50 – Lethal Dose for 50 percent of exposed individuals  
MARPOL – International Convention for the Prevention of Pollution from Ships (Maritime Pollution)  
MSHA – Mine Safety and Health Administration  
NFPA – National Fire Protection Association  
NIOSH – National Institute for Occupational Safety and Health  
NTP – National Toxicology Program  
OSHA – Occupational Safety and Health Administration  
PEL – Permissible Exposure Level  
RCRA – Resource Conservation and Recovery Act of 1976  
SARA – Superfund Amendments and Reauthorization Act  
SDS – Safety Data Sheet  
STOT – Specific Target Organ Toxicity  
TSCA – Toxic Substance Control Act of 1976  
UN – United Nations

### Prepared By:

Bulldog Battery Corporation

### Date:

February 29, 2024

*The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.*