

SAFETY DATA SHEET – 14-359

1. IDENTIFICATION

REVISION DATE: 2/20/2020

<p>PRODUCT IDENTITY: Lead Coated Brass Bolt Assembly</p>	<p>Product Use: Electric Storage Battery Manufacturer/Supplier: C&D Technologies, Inc.</p> <p>Address: C&D Technologies, Inc. 1400 Union Meeting Road Blue Bell, PA 19422-0858</p> <p>Web Sites: www.cdtechno.com</p> <p>North America 24 Hour Emergency Telephone: (CHEM TEL) 1-800-255-3924 International 24 Hour Emergency Telephone: (CHEM TEL) 1-813-248-0585 C&D Technologies Inc. Telephone: 215-619-2700</p>
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2. GHS HAZARDS IDENTIFICATION

Health		Environmental	Physical
Acute Toxicity (Oral/Dermal/Inhalation) Skin Corrosion/Irritation Eye Damage Reproductive Carcinogenicity (lead compounds) Carcinogenicity (arsenic) Carcinogenicity (acid mist) Specific Target Organ Toxicity (repeated exposure)	Category 4 Category 1A Category 1 Category 1A Category 1B Category 1A Category 1A Category 2	Aquatic Chronic 1 Aquatic Acute 1	Explosive Chemical, Division 1.3

GHS Label:

Health	Environmental	Physical
<i>Hazard Statements</i>		<i>Precautionary Statements</i>

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<p>DANGER! Harmful if swallowed, inhaled, or in contact with skin. Acid causes severe skin burns and eye damage. May damage fertility or the unborn child if ingested or inhaled. May cause harm to breast-fed children. May cause cancer if ingested or inhaled. Causes skin irritation, serious eye damage. Contact with internal components may cause irritation or severe burns. Causes damage to central nervous system, blood and kidneys through prolonged or repeated exposure if ingested or inhaled. Irritating to eyes, respiratory system, and skin. May form explosive air/gas mixture during charging. Explosive, fire, blast or projection hazard.</p>	<p>Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wash thoroughly after handling. 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. Use only outdoors or in a well-ventilated area. Avoid contact with internal acid. Do not breathe dust/fume/gas/mist/vapors/spray. Keep away from heat/sparks/open flames/hot surfaces. No smoking IF SWALLOWED OR CONSUMED: rinse mouth. Do NOT induce vomiting. Call a poison center/doctor if you feel unwell. IF ON CLOTHING OR SKIN (or hair): Remove/Take off immediately all contaminated clothing and wash it before reuse. Rinse skin with water/shower. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/physician. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If exposed/concerned, or if you feel unwell seek medical attention/advice. Store locked up, in a well-ventilated area, in accordance with local and national regulation. Dispose of contents/container in accordance with local and national regulation Keep out of reach of children.</p>
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HEALTH HAZARDS		
Acute Toxicity	Signal Word	Hazard Statement
Oral A.1 (6)	Warning	H302: Harmful if swallowed
Dermal A.1 (5)	Warning	H312: Harmful in contact with skin
Inhalation A.1 (5)	Warning	H332: Harmful if inhaled
Skin Irritation		
A.2 (2)	Warning	H315: Causes skin irritation
Skin Corrosion		
A.2 (1A,1B,1C)	Danger	H314: Causes serious skin burns and eye damage
Serious Eye Damage		
A.3 (1)	Danger	H318: Causes serious eye damage
Eye Irritation		
A.3 (2A)	Warning	H319: Causes serious eye irritation
Respiratory Sensitization		
A.4 (1A, 1B)	Danger	H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled
Skin Sensitization		
A.4 (1A, 1B)	Warning	H317: May cause an allergic skin reaction
Germ Cell Mutagenicity		
A.5 (1A, 1B)	Danger	H340: May cause genetic defects
A.5 (2)	Warning	H341: Suspected of causing genetic defects
Carcinogenicity		

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A.6 (1A, 1B)	Danger	H350: May cause cancer
A.6 (2)	Warning	H351: Suspected of causing cancer
Reproductive Toxicity		
A.7 (1A, 1B)	Danger	H360: May damage fertility or the unborn child.
A.7 (2)	Warning	H361: Suspected of damaging fertility or the unborn child.
Specific Target Organ Toxicity Single Exposure		
A.8 (1)	Danger	H370: Causes damage to organs
A.8 (2)	Warning	H371: May cause damage to organs
Specific Target Organ Toxicity Repeated or Prolonged Exposure		
A.9 (1)	Danger	H372: Causes damage to organs
A.9 (2)	Warning	H373: May cause damage to organs
Aspiration Hazard		
A.10 (1)	Danger	H304: May be fatal if swallowed and enters airways
ENVIRONMENTAL HAZARDS		
Aquatic Toxicity Acute		
1.1	Warning	H400: Very toxic to aquatic life
Aquatic Toxicity Chronic		
2.1	Warning	H410: Very toxic to aquatic life with long lasting effects

3. *COMPOSITION / INFORMATION ON INGREDIENTS

INGREDIENTS (Chemical/Common Names):	CAS No.:	% by Wt:
*Lead , Lead Compounds	7439-92-1	1 - 20
NON-HAZARDOUS COMPONENTS		
Inert Compounds	N/A	80 - 99
SECTION 313 (40 CFR 372) LISTED TOXIC CHEMICALS ARE PRECEDED BY AN *.		

4. FIRST AID MEASURES

Normal handling of lead plated bolt assembly does not present a lead hazard or exposure. A lead hazard is present if lead plated bolt assemblies are melted or mechanically cleaned or abraded and there is an exposure to particles.

INHALATION:

No inhalation of lead particles possible with normal handling of lead plated bolt assemblies. Upon contact with any lead dust, remove from exposure, gargle, wash nose and lips; consult physician.

INGESTION:

If ingestion of lead metallic particles, flush with water and get immediate medical attention.

SKIN:

Upon contact with any lead metallic particles, wash immediately with soap and water.

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Upon contact with any lead metallic particles, wash immediately with water and get immediate medical attention.

5. FIRE FIGHTING MEASURES

Flash Point: Not Applicable

Oxygen Index = N/A

Flammable Limits: N/A

Extinguishing media: Class ABC, Carbon dioxide, dry chemicals, or water spray.

Fire Fighting Procedures:

Wear protective clothing and positive pressure, self-contained breathing apparatus.

Hazardous Combustion Products:

Highly toxic lead oxide fumes may evolve from heated metal.

6: ACCIDENTAL RELEASE MEASURES

Ventilate area upon release of any lead particle leak or spill. Wear appropriate protective equipment such as respirator, goggles and gloves, if airborne lead dust particles are present.

7. HANDLING AND STORAGE**Handling and Storage:**

None.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION**Exposure Limits (mg/m³)** Note: N.E. = Not Established

INGREDIENTS (Chemical/Common Names):	OSHA PEL	ACGIH	US NIOSH	Quebec PEV	Ontario OEL	EU OEL
Lead, Lead Compounds	0.05	0.05	0.05	0.05	0.05	0.15 (b)

(b)As inhalable aerosol

Engineering Controls (Ventilation):

None.

Respiratory Protection (NIOSH/MSHA approved):

None required under normal conditions. When cleaning lead plated bolt assemblies with wire brush or other mechanical actions, and airborne lead dust particles are known to exceed PEL, use NIOSH or MSHA-approved respiratory protection.

Skin Protection:

Not required.

Eye Protection:

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Use safety glasses with sideshields.

Other Protection:

When cleaning lead plated bolt assemblies with wire brush or other mechanical actions, wear impervious protective clothing, including long sleeved shirts, nitrile gloves, boots, lab coats, apron, coveralls or work uniform if adverse conditions or employee exposures warrant.

9. PHYSICAL AND CHEMICAL PROPERTIES

Properties Listed Below are for Electrolyte:			
Boiling Point:	N/A	Specific Gravity (H ₂ O = 1):	N/A
Melting Point:	N/A	Vapor Pressure (mm Hg):	N/A
Solubility in Water:	N/A	Vapor Density (AIR = 1):	N/A
Evaporation Rate:	N/A	% Volatile by Weight:	N/A
Appearance and Odor:	Manufactured article; no apparent odor.		

10. STABILITY AND REACTIVITY

Stability: Stable X Unstable

This product is stable under normal conditions at ambient temperature.

Conditions to Avoid: None.

Incompatibilities (materials to avoid): None.

Hazardous Decomposition Products: N/A

Hazardous Polymerization:

Will not occur

11. TOXICOLOGICAL INFORMATION

The following toxicological information is applicable to any employee exposure to any lead dust particles from cleaning lead bolt assemblies with wire brush or other mechanical means.

Routes of Entry:

Hazardous exposure can occur upon any employee exposure to lead dust particles from cleaning operations.

Inhalation:

Inhalation of lead dust or fumes may cause irritation of upper respiratory tract and lungs.

SAFETY DATA SHEET – 14-359**Ingestion:**

Acute ingestion may cause abdominal pain, nausea, vomiting, diarrhea and severe cramping. This may lead rapidly to systemic toxicity and must be treated by a physician.

Skin Contact:

Not absorbed through the skin.

Eye Contact:

May cause eye irritation.

Effects of Overexposure - Acute:

Symptoms of toxicity include headache, fatigue, abdominal pain, loss of appetite, muscular aches and weakness, sleep disturbances and irritability.

Effects of Overexposure - Chronic:

Anemia; neuropathy, particularly of the motor nerves, with wrist drop; kidney damage; reproductive changes in males and females. Repeated exposure to lead and lead compounds in the workplace may result in nervous system toxicity. Some toxicologists report abnormal conduction velocities in persons with blood lead levels of 50 µg/100 ml or higher. Heavy lead exposure may result in central nervous system damage, encephalopathy and damage to the blood-forming (hematopoietic) tissues.

Carcinogenicity:

Lead is listed as a 2B carcinogen, likely in animals at extreme doses. Proof of carcinogenicity in humans is lacking at present.

Medical Conditions Generally Aggravated by Exposure:

Lead and its compounds can aggravate some forms of kidney, liver and neurologic diseases.

Acute Toxicity:

Inhalation LD50:

Acute Toxicity Point Estimate = 4500 ppmV (based on lead bullion)

Oral LD50:

Acute Toxicity Estimate (ATE) = 500 mg/kg body weight (based on lead bullion)

Additional Health Data:

All heavy metals, including the hazardous ingredients in this product, are taken into the body primarily by inhalation and ingestion. Most inhalation problems can be avoided by adequate precautions such as ventilation and respiratory protection covered in Section 8. Follow good personal hygiene to avoid inhalation and ingestion: wash hands, face, neck and arms thoroughly before eating, smoking or leaving the work site. Keep contaminated clothing out of non-contaminated areas, or wear cover clothing when in such areas. Restrict the use and presence of food, tobacco and cosmetics to non-contaminated areas. Work clothes and work equipment used in contaminated areas must remain in designated areas and never taken home or laundered with personal

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non-contaminated clothing. This product is intended for industrial use only and should be isolated from children and their environment.

The 19th Amendment to EC Directive 67/548/EEC classified lead compounds, but not lead in metal form, as possibly toxic to reproduction. Risk phrase 61: May cause harm to the unborn child, applies to lead compounds, especially soluble forms.

12. ECOLOGICAL INFORMATION

Environmental Fate: lead is very persistent in soil and sediments. No data on environmental degradation. Mobility of metallic lead between ecological compartments is slow. Bioaccumulation of lead occurs in aquatic and terrestrial animals and plants but little bioaccumulation occurs through the food chain. Most studies include lead compounds and not elemental lead.

Environmental Toxicity: Aquatic Toxicity:

48 hr LC50 (modeled for aquatic invertebrates): <1 mg/L, based on lead bullion

Additional Information

- No known effects on stratospheric ozone depletion.
- Volatile organic compounds: 0% (by Volume)
- Water Endangering Class (WGK): NA

13. DISPOSAL CONSIDERATIONS (UNITED STATES)

Send to secondary lead smelter for recycling. Spent lead-acid batteries are not regulated as hazardous waste when the requirements of 40 CFR Section 266.80 are met. Spilled sulfuric acid is a characteristic hazardous waste; EPA hazardous waste number D002 (corrosivity) and D008 (lead).

Following local, State/Provincial, and Federal/National regulations applicable to end-of-life characteristics will be the responsibility of the end-user.

14. TRANSPORT INFORMATION

Not applicable.

15. REGULATORY INFORMATION

EPCRA Sections 302, 304, 311 & 312

The lead used in lead-acid batteries does not qualify for any OSHA or EPCRA exemptions. Lead is not an EHS, and the following table outlines the applicable EPCRA Sections and their respective thresholds for **lead**:

EPCRA Sections - Lead	Thresholds
311 - MSDS Reporting	≥ 10,000 lbs.
312 - Chemical Inventory Reporting (i.e. Tier II)	≥ 10,000 lbs.

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EPCRA Section 313

The reporting of lead in lead-acid batteries used in cars, trucks, most cranes, forklifts, locomotive engines, and aircraft for the purposes of EPCRA Section 313 is not required. Lead-acid batteries used for these purposes are exempt for Section 313 reporting per the "Motor Vehicle Exemption." See page B-22 of the U.S. EPA Guidance Document for Lead and Lead Compound Reporting under EPCRA Section 313 for additional information of this exemption.

TSCA:

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.

STATE REGULATIONS (US):

***Proposition 65 Warning**

Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the state of California to cause cancer and reproductive harm. Wash hands after handling.

*Battery companies not party to the 1999 consent judgment with Mateel Environmental Justice Foundation should include a Proposition 65 Warning that complies with the current version of Proposition 65.

16. OTHER INFORMATION

NFPA Hazard Rating for sulfuric acid:

Flammability (Red) = 0

Health (Blue) = 0

Reactivity (Yellow) = 0

MSDS Preparation/Review Date: 2/20/2020
Prepared by: W. E. Kozlowski – Director EHS

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