

**SAFETY DATA SHEET – 14-364**

**1. IDENTIFICATION**


**REVISION DATE: 1/11/2017**

<p><b>PRODUCT IDENTITY: LITHIUM ION BATTERY LI TEL 48-170C</b></p>	<p><b>Product Use:</b> Electric Storage Battery  <b>Manufacturer/Supplier:</b> C&amp;D Technologies, Inc.</p> <p><b>Address:</b>                  C&amp;D Technologies, Inc.                  1400 Union Meeting Road                  Blue Bell, PA 19422-0858</p> <p>Web Sites: <a href="http://www.cdtechno.com">www.cdtechno.com</a></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&amp;D Technologies Inc. Telephone: 215-619-2700</p>
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**2. GHS HAZARDS IDENTIFICATION**

Health	Environmental	Physical
Sealed battery – not a health hazard	Sealed battery – not an environmental hazard.	Sealed battery – no physical hazards.

**GHS Label:**

Health	Environmental	Physical
		
<p><b>Hazard Statements</b>                  Sealed battery – not a health hazard.  <b>If exposure to internal materials within the cell due to damage to the outer casing, the following actions are recommended:</b>                  Inhalation: leave area immediately and seek medical attention.                  Eye contact: rinse eyes with water for at least 15 minutes and seek medical attention.                  Skin contact: wash area thoroughly with soap and water and seek medical attention.                  Ingestion: drink milk/water and induce vomiting; seek medical attention.</p>	<p><b>Precautionary Statements</b>                  Sealed battery – not a health hazard.  <b>If exposure to internal materials within the cell due to damage to the outer casing, the following precautions are recommended:</b>                  Wear protective gloves/protective clothing, eye protection/face protection when handling any internal components.                  Causes skin, eye and respiratory tract irritation.</p>	

**SAFETY DATA SHEET – 14-364****3. \*COMPOSITION / INFORMATION ON INGREDIENTS**

INGREDIENTS (Chemical/Common Names):	CAS No.:	% by Wt:
*Aluminum foil	7492-90-5	2-10
Metal oxide	N/A	20-50
*Polyvinylidene Flouride (PVDF)	24937-79-9	10
*Copper foil	7440-50-8	2-10
*Carbon	7440-44-0	10-30
Electrolyte	N/A	10-20
Al Laminated Film	N/A	Remainder

**SECTION 313 (40 CFR 372) LISTED TOXIC CHEMICALS ARE PRECEDED BY AN \*.**

**4. FIRST AID MEASURES****INHALATION:**

Solid battery; no inhalation possible.

**INGESTION:**

Solid battery; no ingestion possible. .

**SKIN:**

Solid battery; no skin contact with internal components possible..

**EYES:**

Wear safety glasses with side shields.

**If exposure to internal materials within the cell due to damage to the outer casing, the following actions are recommended:**

Inhalation: leave area immediately and seek medical attention.

Eye contact: rinse eyes with water for at least 15 minutes and seek medical attention.

Skin contact: wash area thoroughly with soap and water and seek medical attention.

Ingestion: drink milk/water and induce vomiting; seek medical attention.

**5. FIRE FIGHTING MEASURES**

**Flash Point:** Not Applicable

**Flammable Limits:** LEL: N/A; OEL: N/A

**Extinguishing media:** Class ABC or CO2. Do not use carbon dioxide directly on cells as the thermal shock may cause cracking of the battery case.

**Fire Fighting Procedures:**

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

**SAFETY DATA SHEET – 14-364****Hazardous Combustion Products:**

This cell is not flammable but internal material will burn if the cell is incinerated. Combustible products include, but are not limited to, hydrogen fluoride, carbon monoxide, and carbon dioxide..

**6: ACCIDENTAL RELEASE MEASURES**

If battery case is dismantled or damaged, use sand, earth or vermiculite to absorb any exuded material. Damaged batteries that are not hot or burning should be placed in a sealed plastic bag or container with absorbent material and disposed of per Federal, State, and Local regulations..

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

Do not open, disassemble, or crush plus or minus battery terminal with conductive materials. Do not expose the battery to extreme heat or fire. Store battery in a cool and dry place and keep at room temperature.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION****Exposure Limits (mg/m<sup>3</sup>)** Note: N.E. = Not Established

INGREDIENTS (Chemical/Common Names):	OSHA PEL	ACGIH	US NIOSH	Quebec PEV	Ontario OEL	EU OEL
Aluminum foil	2 mg/m <sup>3</sup> as soluble salt	10 mg/m <sup>3</sup> as dust				
Carbon	2 mg/m <sup>3</sup> as dust	3.5 mg/m <sup>3</sup> as dust				
Copper foil	1 mg/m <sup>3</sup> as dust	1 mg/m <sup>3</sup> as dust				

**Engineering Controls (Ventilation):**

Store and handle in well-ventilated area. Keep away from heat and open flame. Store in a cool, dry place.

**Respiratory Protection (NIOSH/MSHA approved):**

None required under normal conditions. In the event of a fire, use NIOSH or MSHA-approved respiratory protection or full face SCBA.

**Skin Protection:**

If battery case is damaged, use nitrile gloves when handling internal components.

**Eye Protection:**

Safety glasses with side shields per normal handling.

**Other Protection:**

Not required.

**SAFETY DATA SHEET – 14-364****9. PHYSICAL AND CHEMICAL PROPERTIES**

Properties Listed Below are for Electrolyte:			
Boiling Point:	N/A	Specific Gravity (H <sub>2</sub> 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: (Butyl Acetate = 1)	N/A	% Volatile by Weight:	N/A
pH:	N/A	Flash Point:	N/A
Appearance and Odor:	<b>Manufactured article; no apparent odor. Solid battery.</b>		

**10. STABILITY AND REACTIVITY**Stability: Stable X Unstable \_\_\_

This product is stable under normal conditions at ambient temperature.

**Conditions to Avoid:** avoid exposure to heat, open flame, and corrosives. Do not puncture, crush or incinerate.**Incompatibilities (materials to avoid):** conductive metals and organic solvents.**Hazardous Decomposition Products:** none during normal operations.**Hazardous Polymerization:** will not occur**11. TOXICOLOGICAL INFORMATION****This product does not elicit toxicological properties during routine handling and use. If the cells are opened through misuse or damage, dispose of battery immediately per regulatory requirements. Internal components of cell are irritants.****Routes of Entry:**

No exposure possible during normal operations.

**Inhalation:**

No exposure possible during normal operations..

**Ingestion:**

No exposure possible during normal operations.

**Skin Contact:**

No exposure possible during normal operations.

**Eye Contact:**

May cause eye irritation if exposure to internal components.

**SAFETY DATA SHEET – 14-364****Effects of Overexposure - Acute:**

Not applicable.

**Effects of Overexposure - Chronic:**

Not applicable.

**Carcinogenicity:**

Not applicable.

**Medical Conditions Generally Aggravated by Exposure:**

Not applicable.

**Acute Toxicity:**

Not applicable.

**Additional Health Data:**

**If exposure to internal materials within the cell due to damage to the outer casing, the following actions are recommended:**

Inhalation: leave area immediately and seek medical attention.

Eye contact: rinse eyes with water for at least 15 minutes and seek medical attention.

Skin contact: wash area thoroughly with soap and water and seek medical attention.

Ingestion: drink milk/water and induce vomiting; seek medical attention.

***12. ECOLOGICAL INFORMATION***

**Environmental Fate:** Not applicable.

**Environmental Toxicity:** Not applicable

***13. DISPOSAL CONSIDERATIONS (UNITED STATES)***

Spent batteries: Send to secondary lead smelter for recycling.

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

**SAFETY DATA SHEET – 14-364****14. TRANSPORT INFORMATION**

**UN Number** UN3480  
**Shipping Name** Lithium Batteries  
**Hazard Classification** Class 9  
**Packing Group** II

**IATA/ICAO (air transportation):** Air Transport Not Permitted  
**IDMG (sea transportation):** UN3480 or UN3481

**Transportation within the U.S. (DOT):** 49 Code of Federal Regulations

**15. REGULATORY INFORMATION****UNITED STATES:****EPCRA Sections 302, 304, 311 & 312**

Lithium batteries do **NOT** meet the OSHA definition of an "article" (US EPA, Oct. 1998).

**EPCRA Section 313**

Not applicable.

**TSCA:**

TSCA Section 8b – Inventory Status: All chemicals comprising this product are either exempt or listed on the TSCA Inventory.

**RCRA:** Spent lithium Batteries are subject to streamlined handling requirements when managed in compliance with 40 CFR section 266.80 or 40 CFR part 273.

**16. OTHER INFORMATION****NFPA Hazard Rating:**

Flammability (Red) = 0

Health (Blue) = 0

Reactivity (Yellow) = 0

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MSDS Preparation/Review Date: 1/11/2017  
Prepared by: W. E. Kozlowski – Director EHS

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