

LB001 Lithium Battery Pack

PRODUCT NAME : Pulsarlube Lithium Battery Pack

Type No.: LB001

Volts : DC 4.5V

TRADE NAMES : Lithium Battery Pack

Approximate Weight : 59.5g

CHEMICAL SYSTEM : Lithium Iron Disulfide

 Designed for Recharge : No

1. MANUFACTURER INFORMATION

Pulsarlube USA, Inc.
1480 Howard Street,
Elk Grove Village,
IL 60007, USA

Telephone Number for Information:

Tel.: +1 (847) 593-5300

Fax : +1 (847) 593-5303

Emergency telephone number:

**For Hazardous Materials [or Dangerous Goods] Incident
Spill, Leak, Fire, Exposure, or Accident, call:**

ChemTel - Contract #MIS9192028

USA/CANADA	800-255-3924
MEXICO	01-800-099-0731
CHINA	400-120-0751
BRAZIL	0-800-591-6042
INDIA	000-800-100-4086
INTERNATIONAL	01-812-248-0585

2. HAZARDS IDENTIFICATION

GHS classification: N/A

Signal Word: N/A

Hazard Classification: N/A

Under normal conditions of use, the battery & battery pack is hermetically sealed.

3. Composition/information on ingredients

IMPORTANT NOTE : The battery should not be opened or burned. Exposure to the ingredients contained within or their combustion products could be harmful.

(Based on the battery)

MATERIAL OR INGREDIENT	PEL (OSHA)	TLV (ACGIH)	%/wt.
Carbon Black (CAS# 1333-86-4)	3.5 mg/m ³ TWA	3.5 mg/m ³ TWA	0-3
1,2 Dimethoxyethane (CAS# 110-71-4)	None established	None established	2-3
1,3 Dioxolane (CAS# 646-06-0)	None established	20 ppm TWA	5-8
Graphite (CAS# 7782-42-5)	15 mg/m ³ TWA (total dust) 5 mg/m ³ TWA (respirable fraction)	2 mg/m ³ TWA (respirable fraction)	0-3

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Iron Disulfide (CAS# 1309-36-0)	None established	None established	28-36
Lithium or Lithium Alloy	None established	None established	6.3-6.5
Lithium Iodide	None established	None established	0.3-2.5
Non-Hazardous Components Steel (iron CAS# 65997-19-5)	None established	None established	18-24
Plastic and Other	None established	None established	Balance

4. FIRST AID MEASURES

Ingestion : Do not induce vomiting or give food or drink. Seek medical attention immediately. CALL NATIONAL BATTERY INGESTION HOTLINE for advice and follow-up (202-625-3333) collect day or night.
(when Problem happen which The battery cell in a pack)

Inhalation : Contents of an open battery can cause respiratory irritation.

Skin Contact : Contents of an open battery can cause skin irritation.

Eye Contact : Contents of an open battery can cause severe irritation.

5. FIRE FIGHTING MEASURES

In case of fire where lithium batteries are present, flood area with water or smother with a Class D fire extinguishant appropriate for lithium metal, such as Lith-X. Water may not extinguish burning batteries but will cool the adjacent batteries and control the spread of fire. Burning batteries will burn themselves out. Virtually all fires involving lithium batteries can be controlled by flooding with water. However, the contents of the battery will react with water and form hydrogen gas. In a confined space, hydrogen gas can form an explosive mixture. In this situation, smothering agents are recommended. A smothering agent will extinguish burning lithium batteries.

Emergency Responders should wear self-contained breathing apparatus. Burning lithium-iron disulfide batteries produce toxic and corrosive lithium hydroxide fumes and sulfur dioxide gas.

6. ACCIDENTAL RELEASE MEASURES

To cleanup leaking batteries:

Ventilation Requirements : Room ventilation may be required in areas where there are open or leaking batteries.

Respiratory Protection : Avoid exposure to electrolyte fumes from open or leaking batteries.

Eye Protection : Wear safety glasses with side shields if handling an open or leaking battery.

Gloves : Use neoprene or natural rubber gloves if handling an open or leaking battery.

Battery materials should be disposed of in a leak-proof container.

7. HANDLING AND STORAGE

Storage : Store in a cool, well ventilated area. Elevated temperatures can result in shortened battery life. In locations that handle large quantities of lithium batteries, such as warehouses, lithium batteries should be isolated from unnecessary combustibles.

Mechanical Containment : If potting or sealing the battery in an airtight or watertight container is required, consult your Pulsarlube USA, Inc. representative for precautionary suggestions. Do not obstruct safety release vents on batteries. Encapsulation of batteries will not allow cell venting and can cause high pressure rupture.

Handling : Accidental short circuit for a few seconds will not seriously affect the battery. Prolonged short circuit will cause the battery to lose energy, generate significant heat and can cause the safety release vent to open. Sources of short circuits include jumbled batteries in bulk containers, metal jewelry, metal covered tables or metal belts used for assembly of batteries into devices. Damaging a lithium battery may result in an internal short circuit.

The contents of an open battery, including a vented battery, when exposed to water, may result in a fire and/or explosion.

Crushed or damaged batteries may result in a fire.

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If soldering or welding to the battery is required, consult your Pulsarlube representative for proper precautions to prevent seal damage or short circuit.

Charging : This battery is manufactured in a charged state. It is not designed for recharging. Recharging can cause battery leakage or, in some cases, high pressure rupture. Inadvertent charging can occur if a battery is installed backwards.

Labeling : If the Pulsarlube label or package warnings are not visible, it is important to provide a package and/or device label stating:

WARNING: Battery can explode or leak and cause burns if installed backwards, disassembled, charged, or exposed to water, fire or high temperature.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ventilation Requirements : Not necessary under normal conditions.

Respiratory Protection : Not necessary under normal conditions.

Eye Protection : Not necessary under normal conditions.

Gloves : Not necessary under normal conditions.

9. PHYSICAL AND CHEMICAL PROPERTIES

(Based on the battery)

Appearance (physical state, color, etc.):	Solid object
Upper Explosive Limits:	Not applicable for an Article
Lower Explosive Limits	Not applicable for an Article
Odor	No odor
Vapor Pressure (mm Hg @ 25°C)	Not applicable for an Article
Odor Threshold	No odor
Vapor Density (Air = 1)	Not applicable for an Article
pH	Not applicable for an Article
Density (g/cm ³)	1.7 -2.0
Melting point/Freezing Point	Not applicable for an Article
Solubility in Water (% by weight)	Not applicable for an Article
Boiling Point @ 760 mm Hg (°C)	Not applicable for an Article
Flash Point	Not applicable for an Article
Evaporation Rate (Butyl Acetate = 1)	Not applicable for an Article
Flammability	Not applicable for an Article
Partition Coefficient	Not applicable for an Article
Auto-ignition Temperature	Not applicable for an Article
Decomposition Temperature	Not applicable for an Article
Viscosity	Not applicable for an Article

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10. STABILITY AND REACTIVITY

Product is stable under conditions described in Section 7.

Conditions to avoid: Heat above 70° or incinerate. Deform. Mutilate. Crush. Pierce. Disassemble.
Short circuit. Expose over a long period to humid conditions.

Materials to avoid: Strong miner

11. TOXICOLOGICAL INFORMATION

Under normal conditions of use, lithium iron disulfide batteries are non-toxic.

12. ECOLOGICAL INFORMATION

Issues such as ecotoxicity, persistence and bioaccumulation are not applicable for articles.

13. DISPOSAL CONSIDERATIONS

Lithium iron disulfide batteries are not hazardous waste per the United States Resource Conservation and Recovery Act (RCRA) - 40 CFR Part 261 Subpart C. Dispose of in accordance with all applicable federal, state and local regulations

14. TRANSPORT INFORMATION




In general, all batteries in all forms of transportation (ground, air, or ocean) must be packaged in a safe and responsible manner. Regulatory concerns from all agencies for safe packaging require that batteries be packaged in a manner that prevents short circuits and be contained in "strong outer packaging" that prevents spillage of contents. LB001 contains more than 2g but less than 3g of lithium content.

※ UN 38.3 Approved (UNITED NATIONS, "Recommendations on the TRANSPORT OF DANGEROUS GOODS" Manual of Test and Criteria ST/SG/AC.10/11/Rev.7, Part III, Sub-Section 38.3 Certi. No ECU-2022-003866)

Regulatory Body	Special Provisions
ADR	188, 230, 310, 636, 656
IMDG	188, 230, 310, 957
UN	UN 3090, UN 3091
US DOT	422, A54
IATA 58th Edition, ICAO	Packaging Instructions 968 – 970

A global lithium label chart is provided below to summarize the current global labeling requirements

Label Summary Chart

Shipping Mode	Li content	Max. net quantity per package	Battery Type			
AIR	2g to <3g/cell	35kg	LB001	YES	YES	YES
LAND SEA ONLY	2g to <3g/cell	35kg	LB001	NO	YES	YES

PSDS (Product Safety Data Sheet)**15. REGULATORY INFORMATION**

10A Battery

1. SARA/TITLE III: As an article, this battery and its contents are not subject to the requirements of the Emergency Planning and Community Right-To-Know Act.
2. USA EPA Mercury Containing & Rechargeable Battery Management Act of 1996: No mercury added
3. EU Battery Directive 2006/66/EC Amended 2013/56/EU: Energizer batteries are compliant with all aspects of the Directive

10B General

1. CPSIA 2008: Exempt
2. US CPSC FHSA (16 CFR 1500): Not applicable since batteries are defined as articles
3. USA EPA TSCA (40 CFR 707.20): Not applicable since batteries are defined as articles
4. USA EPA RCRA (40 CFR 261): Classified as non-hazardous waste per ignitable, corrosive, reactive or toxicity testing
5. California Prop 65: No warning required
6. DTSC Perchlorate labeling: No warning required
7. EU REACH SVHC:1,2 dimethoxyethane (DME) is present above 0.01% w/w

10C Article Definitions

1. OSHA Hazard Communication Standard, Section 1910.1200(c)

16. OTHER INFORMATION

1) Source of the data

(1) Battery manufacturer's information : PSDS(PRODUCT SAFETY DATA SHEET) Data

2) The first creation date : 2015.01.07

3) The number of times, and the final revision date : Revision times 05

The final revision date: 2022.06.21

Pulsarlube has prepared copyrighted Product Safety Datasheets to provide information on the different Pulsarlube battery systems. As defined in OSHA Hazard Communication Standard, Section 1910.1200 (c), Pulsarlube Lithium battery Packs are manufactured articles, which do not result in exposure to a hazardous chemical under normal conditions of use. The information and recommendations set forth herein are made in good faith, for information only, and are believed to be accurate as of the date of preparation. However, Pulsarlube, Inc. MAKES NO WARRANTY, EITHER EXPRESS OR IMPLIED, WITH RESPECT TO THIS INFORMATION AND DISCLAIMS ALL LIABILITY FROM REFERENCE ON IT.