Product Name: Li-Battery

**Revision Date:** 2020-01-01

Compiler: Liu Qiao

Checker: Liu Gang

Approver: Jia Xunheng



# Tianjin Lishen Battery Co.,Ltd.

# SAFETY DATA SHEET

# Li-Battery

# SECTION1 PRODUCT AND COMPANY IDENTIFICATION

Product name: HB351329ECW(100mAh/0.382Wh/3.82V) Company: Tianjin Lishen Battery Joint-Stock Co. Ltd

Address: 6 Lanyuan Road, Huayuan Hi-Tech Industry Park, TianJin, China.

Email: huolizhong@lishen.com.cn

Fax: 86-022-83718661

Emergency Phone: 86-022-83718661

SDS Number: LSCM2020-02 SDS Date: 2020-01-01

# SECTION2 HAZARDS IDENTIFICATION

Hazards Identification:

The battery has passed the test items of UN Model Regulations, Manual of Test and Criteria Section UN 38.3. It is not restricted to IATA 60 revision and IMO 35-10 revision. Emergency Overview:

Avoid contact and inhalation the electrolyte contained inside the batter

# SECTION3 INFORMATION ON INGREDIENTS

Product name: HB351329ECW(100mAh/0.382Wh/3.82V)

INGREDIENT	CONCENTRATION	CAS NO.	FC.NO.
Aluminum Foil	2-10	7429-90-5	<b>1</b> 股份有限公司。 <b>8</b>
Lithiuml cobalt Oxide	20-40	12190-79-3	
Polyvinylidene Fluoride (PVDF)	<5	24937-79-9	12 reanneas
Copper Foil	2-11	7440-50-8	
Graphite	10-20	7782-42-5	
Electrolyte (proprietary)	10-20	Confidential	
Carboxymethyl Cellulose (CMC)	<2	9000-11-7	
Styrene butadiene rubber (SBR)	<2	9003-55-8	
Aluminum and inert materials	Remainder	N/A	

#### SECTION4 FIRST-AIDMEASURES

Skin Exposure:

If the internal battery materials of an opened battery cell come into contact with te skin, immediately flush with plenty of water.

Eye Exposure:

In case of contact with eye, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

Inhalation Exposure:

If potential for exposure to nickel fumes or dusts occurs, remove immediately to fresh air and seek medical attention.

Oral Exposure:

If swallowed, do not induce vomiting. Seek immediate medical attention.

#### SECTION5 FIRE FIGHTING MEASURES

Extinguishing Media:

Use extinguishing media suitable for the materials that are burning. Firefighting:

Use NIOSH/MSHA approved full-face self-contained breathing apparatus (SCBA) with full protective gear.

#### SECTION6 ACCIDENTAL RELEASE MEASURES

Procedure of Personal Precaution:

ON LAND

Place material into suitable containers and call local fire/police department. IN WATER  $\,$ 

If possible, remove from water and call local fire/police department.

#### SECTION7 HANDLING AND STORAGE

HANDLING

No special protective clothing required for handling individual cells.  $\begin{tabular}{ll} \textbf{STORAGE} \end{tabular}$ 

Store in a cool, dry place.

#### SECTION8 EXPOSURE CONTROL/PPE

Engineering Controls:

Use ventilation equipment if available. Safety shower and eye bath.

Personal Protective Equipment:

Respiratory System: Not necessary under conditions of normal use.

Eyes: Not necessary under conditions of normal use.

Clothing: Wear appropriate protective clothing.

Other Protect:

No smoking, drinking and eating at working site. Wash thoroughly after handling.

#### SECTION9 PHYSICAL/CHEMICAL PROPERTIES

State	Solid		
Odor	N/A		
РН	N/A		
Vapor pressure	N/A		
Vapor density	N/A		
Boiling point	N/A		
Solubility in water	Insoluble		
Specific gravity	N/A		
Density	N/A		

#### SECTION10 STABILITY AND REACTIVITY

Stability:

Stability during normal operation.

Conditions to Avoid:

Avoid exposure to heat and open flame. Do not puncture, crush or incinerate. Materials to Avoid:

None during normal operation. Avoid exposure to heat, open flame, and corrosives. Hazardous Polymerization: None

Hazardous Decomposition Products:

None during normal operating conditions. If cells are opened, hydrogen fluoride and carbon monoxide may be released.

#### SECTION11 TOXICOLOGICAL INFORMATION

Toxicity Data:

Not available.

Irritation Data:

This product does not elicit toxicological properties during routine handling and use.

Sensitization:	Teratogenicity:	Reproductive	toxicity:	Acute	toxicity:
NO	NO	NO		NO	

This product does not contain any kinds of the following substances and halogen-type flame retardants including Chlorine and Bromide type harmful flame retardants which are listed in Appendix of TCO documents and relevant international ECO requirements:

Polybromated Biphenyls

(PBB)

Polybromated Biphenyl Ethers

(PBBE)

Polybromated Biphenyl Oxides

(PBBO)

Polybromated Diphenylethers

(PBDE)

Polychlorinated Biphenyl

(PCB)

Polychloronated Diphenylethers

(PCDE)

Tetrabromphisphenol A

(TBBPA)

Asbestos, Antimonytrioxide, Dioxine

None of the following substances will be exposed, leaked, or emitted during transportation, storage or any operation and any temperature condition:

Chlorinated Fluorohydrocarbon

(FCKW)

Acrylonitride

Styrol

Phenol

Benzol

Mercury of greater than 0.0001 wt% for alkaline battery

Mercury of greater than 0.0005 wt% for other battery

Lithium content of greater than 0.6g/battery cell

Cadmium, lead, and other harmful heavy metal

And will comply with the regulation of 49 CFR (DOT regulation), International Air Transport Association (IATA), and Deuche Forschungsgemeinschaft (DFG) regarding concentrations of emitted substances.

This product does not contain mercury and lithium-metal.

Mercury content: <

Lithium-metal content: <

If the cells are opened through misuse or damage, discard immediately. Internal components of cell are irritants and sensitizers.

# **SECTION12 ECOLOGICAL INFORMATION**

No data available.

#### SECTION13 DISPOSAL CONSIDERATION

Appropriate Method of Disposal of Substance:

Product (waste from residues)

Do not throw out a used battery cell. Recycle it through the recycling company. Contaminated packaging

Neither a container nor packing is contaminated during normal use. When internal materials leaked from a battery cell contaminates, dispose as industrial wastes subject to special control.

RCRA Waste Code: Nonregulated

Dispose of according to all federal, state, and local regulations.

### SECTION14 TRANSPORT INFORMATION

Shipping Name: Lithium ion batteries

Hazard Class: 9\*
UN Number: 3480&3481
Packing Group: II\*

Codes and classifications according to:

\*International regulations for transport Air IATA-DGR 61th Edition: Section II OF P1965/966/967;

\*International regulations for transport Sea IMDG CODE: Special Provision 188;

\*National regulations for transport land GB12268-2005

### SECTION15 REGULATORY INFORMATION

OSHA hazard communication standard (29 CFR 1910.1200)

Hazardous \_\_\_\_\_\_Non-hazardous

## **SECTION16 OTHER INFORMATION**

Date: 2020-01-01

Department: Prepared and Approved By

TianJin Lishen Battery Company

Cell R&D Center

Tel(Fax): 86-022-83718661

Revision:

Other Information: The above information is believed to be correct but does not purport to  $\boldsymbol{0}$ 

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