Material Safety Data Sheet

Report No.: BL-SZ1910429-F01

Sample Name: Rechargeable Li-ion Polymer Battery

Date: 2019-01-29

prepared for

ZHONGSHAN ZHONGWANGDE NEW ENERGY TECHNOLOGY CO.,LTD

1-2/F, No.3 Factory Building, Dongya Area, Dache Industrial Park, Nanlang Town, Zhongshan City, Guangdong Province

prepared by

Shenzhen BALUN Technology Co., Ltd.

Block B, FL1, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, 518055, P.R. China

Tel: +86-755-6685 0100

Fax: +86-755-61824271

1. Chemical Product and Company Identification

Product Identification

Product model: ZWD553634V

Nominal Voltage: 3.8V

Capacity: 930mAh, 3.534Wh

Weight: Approx.14.5g

Physical Dimension:

H: 36.4 mm W: 36 mm T: 5.5 mm

Manufacturer

ZHONGSHAN ZHONGWANGDE NEW ENERGY TECHNOLOGY CO.,LTD
1-2/F, No.3 Factory Building, Dongya Area, Dache Industrial Park, Nanlang Town, Zhongshan City, Guangdong Province

Emergency Telephone Number

Emergency Telephone: 0760-85202998 -824
Fax: 0760-85203898
E-mail: guokebo@zhongwangde.com

2. Composition Information

Chemical Composition	%	CAS Number
Lithium Cobalt Oxide	35-45	12190-79-3
Aluminum Foil	4-6	7429-90-5
PolyVnylideneFluoride PVDF(-[-CH2-CF2-]-n)	0.5-1.0	24937-79-9
Graphite	14-22	7782-42-5
Copper Foil	9-11	7440-50-8
Styrene-Butadiene polymer	0.2-0.5	9003-55-8
Polyethylene	0.3-0.8	9002-88-4
Phosphate(1-), hexafluoro-, lithium	10-15	21324-40-3
Nickel	2-5	61788-71-4
Carbon Black	0.5-1.5	1333-86-4
Aluminum Packing Foils	8-13	12042-91-0
Other	1-5	--

3. Hazards Identification

Emergency Overview

May explode in a fire, which could release hydrogen fluoride gas.
Use extinguishing media suitable for materials burning in fire.

Primary routes of entry

Skin contact	:	NO
Skin absorption	:	NO
Eye contact	:	NO
Inhalation	:	NO
Ingestion	:	NO

Symptoms of exposure

Skin contact
No effect under routine handling and use.

Skin absorption
No effect under routine handling and use.

Eye contact
No effect under routine handling and use.

Inhalation
No effect under routine handling and use.

Reported as carcinogen
Not applicable

4. First Aid Measures

Inhalation

Not a health hazard

Eye contact

Not a health hazard.

Skin contact

Not a health hazard.

Ingestion

If swallowed, obtain medical attention immediately.

IF EXPOSURE TO INTERNAL MATERIALS WITHIN CELL DUE TO DAMAGED OUTER CASING, THE FOLLOWING ACTIONS ARE RECOMMENDED;

Inhalation

Leave area immediately and seek medical attention

Eye contact

Rinse eyes with water for 15min.

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

General Hazard

Cell is not flammable. Combustion products include, but are not limited to Hydrogen fluoride, carbon monoxide and carbon dioxide.

Extinguishing Media

Use extinguishing media suitable for the materials that are burning

Special Fire fighting Instructions

If possible, remove cell(s) from fire fighting area, If heated above 160℃, cell(s) may explode/vent.

Fire fighting Equipment

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

6. Accidental Release Measures

On land

Place material into suitable containers and call local fine/police department.

In water

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

7. Handling and Storage

Handing

No special protective clothing required for handing individual cells.

Storage

Store in a cool, dry place.

.

8. Exposure Controls/Personal Protection

Engineering control

Keep away from heat and open flame. Store in a cool dry place.

Personal Protection

Respirator

Not required during normal operations. SABA required in the event of a fire

Eye/face protection

Not required safety practices of employer.

Gloves

Not required for handling of cells.

Foot protection
Steel toed shoes recommended for large container handling.

9. Physical and Chemical Properties

State	Solid
Odor	N/A
PH	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

10. Stability and Reactivity

Reactivity
None.

Incompatibilities

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

Hazardous Decomposition Products

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

Conditions TO Avoid

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

11. Toxicological Information

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

Sensitization	Teratogenicity	Reproductive toxicity	Acute toxicity
NO	NO	NO	NO

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

12. Ecological Information

Some materials within the cell are bio-accumulative. Under normal conditions, These materials are contained and pose no risk to persons or the surrounding environment.

13. Disposal Considerations

California regulated debris
RCRA Waste Code: Non-regulated
Dispose of according to all federal, state, and local regulations.

14. Transport Information

In the case of transportation, confirm no leakage and no overspill from a container.
Take in a cargo of them without falling, dropping and breakage. Prevent collapse of cargo piles and wet by rain. The container must be handled carefully. Do not give shocks that result in a mark of hitting on a pack. Please refer to Section 7-HANDLING AND STORAGE also.

·Codes and classifications according to:
·International Air Transport Association (IATA) Dangerous Goods Regulations 2019(60th Edition)

IATA-DGR: special provision

·International regulations for transport Sea IMDG CODE: special provision 188
·National regulations for transport land GB12268-2012
·The UN classification number: Class 9 UN3480/3481
·Packing Instruction PI 965 Section IB / PI 965 Section II / PI 966 Section II / PI 967 Section II for Lithium ion battery.
·Each cell or battery is of the type proven to meet the requirements of each test in the UN Manual of Tests and Criteria, Part III, subsection 38.3
·However, since it corresponds to special provision of ICAO&IATA-DGR, special provision 188 of IMDG CODE, GB12268-2012 of land regulation, this battery can be conveyed normally.

15. Regulatory Information

OSHA Hazard communication standard (29 CFR 1910.1200)

_____Hazardous _____√_____ Non-hazardous

16. Other Information

The information contained in this Safety data sheet is based on the present state of knowledge and current legislation.

This safety data sheet provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications.

Reference

Chemical substances information: Japan Advanced Information center of Safety and Health International Chemical Safety Cards (ICSCs):
International Occupational Safety and Health Information Centre (CIS)
1999 TLVs and BEIs: American Conference of Governmental Industrial Hygienists (ACGIH)
Dangerous Goods Regulations –60th Edition Effective 1 January 2019: International Air Transport Association (IATA)
Regulations specifically applicable to the product: IATA UN No. 3480 / 3481 Special Prevision.

Checked by: Hedy wu Jan. 29. 2019

Approved by: Simon Qi Jan. 29 2019