



 MATERIAL SAFETY DATA SHEET

IDENTITY Product Category : Rechargeable Lithium-ion Battery
 Model Name : V4
 Brand : ring
 Nominal Capacity : 6040 mAh
 Nominal Voltage : 3.65V
 Watt-hour : 22.046 W/hr
 Chemical System : Lithium Cobaltate / Carbon
 Desigened for Recharge : Yes No

 SECTION 1 MANUFACTURER'S INFORMATION

Manufacturer's Name : CHANGZHOU SOARING TECHNOLOGY CO., LTD
 Supplier's Name : Welltech Energy Inc.
 Supplier's Address : 2F, No.181, An Mei St., Nei Hu District, Taipei City 11484, Taiwan
 Information Telephone : 886-2-2790-7958
 Emergency Telephone : 886-2-2790-7959
 Date Prepared : 2019/12/18

 SECTION 2 HAZARDS IDENTIFICATION

PRIMARY ROUTES OF ENTRY

Skin contact, Skin absorption, Eye contact, Inhalation, and 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

 SECTION 3 MATERIAL AND INGREDIENTS INFORMATION

Battery Cell :

Hazardous Ingredients	%	CAS number
Aluminum Foil	2-10	7429-90-5

Metal Oxide (proprietary)	20-50	
Polyvinylidene Fluoride (PVDF)	<5	24937-79-9
Copper Foil	2-10	7440-50-8
Carbon (proprietary)	10-30	7440-44-0
Electrolyte (proprietary)	10-20	
Stainless steel, Nickel and inert materials	Remainder	N/A

Circuit Module :

HAZARDOUS INGREDIENTS	%	CAS number
Lead	<0.1	7439-92-1
Mercury	0	7439-97-6
Chromium	0	7440-47-3
Cadmium	0	7440-43-9

Plastic Parts :

HAZARDOUS INGREDIENTS	%	CAS number
Lead	<0.1	7439-92-1
Nickel	<0.01	7440-02-0
CFCs	0	75-69-4
Polychlorinated Biphenyls	0	1336-36-3

SECTION 4 FIRST-AID MEASURES

Internal cell materials of an opened battery cell

· Inhalation :

Make the victim blow his/her nose, gargle. Seek medical attention if necessary.

· Skin contact :

Remove contaminated clothes and shoes immediately. Wash the adhere or contact region with soap and plenty of water immediately.

· Eye contact :

Immediately flush eyes with water continuously for at least 15 minutes. Seek medical attention immediately.

A battery cell and internal cell materials of an opened battery cell

- Ingestion :

Induce vomiting. When it is impossible or the feeling is not well after vomiting, seek medical attention.

SECTION 5 FIRE-FIGHTING MEASURE

GENERAL HAZARD

Cell is not flammable but internal organic material will burn if the cell is incinerated. 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 FIREFIGHTING INSTRUCTIONS

If possible, remove cell(s) from fire fighting area. If heated above 125°C, cell(s) can explode/vent.

FIREFIGHTING EQUIPMENT

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

SECTION 6 ACCIDENTAL RELEASE MEASURES

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.

SECTION 7 HANDLING AND STORAGE

Storage	:	Store in a cool, well-ventilated area. Do not expose to high temperature (60 °C) . Since short circuit can cause burn hazard or safety vent to open, do not store with metal jewelry, metal covered tables, or metal belt.
Handling	:	Do not disassemble, crush or solder. Do not short + and - terminals with a metal. Do not open the battery.
Charging	:	Charge within the limits of 0°C to 50°C temperature. Charge with specified charger designed for this battery.
Discharging	:	Discharge within the limits of -20°C to 60°C temperature.
Battery Energy Rate	:	The cell capacity at shipment is 30% of the full capacity.
Disposal	:	Dispose in accordance with applicable federal, state and local regulations.

Warning : Fire or explosion if incorrectly installed, shorted, disassembled, hated or disposed of in fire.

SECTION 8 Exposure controls/personal protection

Engineering controls

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

Personal Protection

Respirator

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

Eye/face protection

Not required beyond safety practices of employer.

Gloves

Not required for handling of cells.

Foot protection

Steel toed shoes recommended for large container handling.

SECTION 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
Flashpoint	Not available

SECTION 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

SECTION 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 batteries are opened through misuse or damage, discard immediately. Internal components of cell are irritants and sensitizers.

SECTION 12 ECOLOGICAL INFORMATION

Some materials within the cell are bioaccumulative. Under normal conditions, these materials are contained and pose no risk to persons or the surrounding environment.

SECTION 13 DISPOSAL CONSIDERATIONS

CALIFORNIA REGULATED DEBRIS

RCRA Waste Code: Non-regulated

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

SECTION 14 Transport information

The Lithium Ion batteries are considered to be "Rechargeable batteries" and meet the requirements of transportation by the U.S. Department of Transportation(DOT), International Civil Aviation Administration(ICA), International Air Transport Association(IATA) Dangerous Goods Regulations (61th Edition,2020. Special Provision A88, A99, A154 , A164, A181, A182 and Section II or IB of package instruction,966 or 967 for lithium ion batteries for UN 3481, 965 for lithium ion batteries for UN 3480) and belong to non-dangerous goods and meets all requirements under UN Manual of Tests and Criteria Part III, subsection 38.3.

The International Maritime Dangerous Goods (IMDG) Code · 2018 Edition (Incorporating Amendment 39-18) with special provision 188 & 230.



SECTION 15 REGULATORY INFORMATION

Regulations specifically applicable to the product :

- The transport of the lithium batteries is regulated by the United Nations, "Model Regulations on Transport of Dangerous Goods Special Provisions A188".
- Lithium batteries are subject to shipping requirements exceptions under 49 CFR 173.185(paragraph c).
- Shipping of Lithium batteries in aircrafts are regulated by the International Civil Aviation Organization (ICAO) and the International Air Transport Association (IATA) requirements in Special Provision "A48".
- Shipping of lithium batteries on sea are regulated the International Maritime Dangerous Goods (IMDG) requirements.
- The internal component (thionyl chloride) is non-hazardous and under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 190.1200.

SECTION 16 SPECIAL PROTECTION INFORMATION

Respiratory Protection	:	Not necessary under normal use.
Ventilation	:	Not necessary under normal use.
Eye Protection	:	Not necessary under normal use.
Protective Gloves	:	Not necessary under normal use.