材料安全数据表
Material Safety Data Sheet

货 物 名 称: 锂离子电池

Name of Goods: Secondary Lithium Ion Battery

生 产 厂家: 广州云通锂电池股份有限公司

Manufacture：Wintonic Battery&Magnet Co.,Ltd

地 址： 广州市花都区新华镇新华工业区云 38 号

ADDRESS : #38,Yunfeng Road,Xinhua Industrial Zone, Huadu District, Guangzhou,China

广州云通锂电池股份有限公司

Guangzhou Wintonic Battery&Magnet Co.,

材料安全数据表

Material Safety Data Sheet

1. Identification of the product and supplier（产品信息）	
产品名称 Name of goods	锂离子电池 Secondary Lithium-ion Battery
产品型号 Type/Mode	**26650**—3000，4000，4500，4800，5000 **18650**— 800，900，1000，1100，1200，1300，1400，1500，1800，1900，2000，2100，2200，2300，2400，2500，2600 **18500**—600，700，800，900，1000，1100, 1200，1300，1400，1500，1600 **14500**—900,800,700,650,600,500,400； **14430**—500, 450，400,300,250；14650-900，26650-3000，18500 800mAh 12.8V，**14500** 500mAh 12.8V，**18650** 1500mAh 11.1V，**18650** 1800mAh 11.1V，，**WT651723** 3.7V 150mAh，**WT702030** 3.7V 300mAh，**WT723048** 3.7V 850mAh，**INR18650** 2200mAh 7.4V，**INR18650** 2200mAh 11.1V， **26650** 4000mAh 3.7V，**26650** 4500mAh 3.7V，**26650** 4800mAh 3.7V, **26650** 5000mAh 3.7V，**551218** 65mAh 3.7V，**651220** 85mAh 3.7V，**682030** 250mAh 3.7V，**802035** 380mAh 3.7V，**902240** 650mAh 3.7V， **532030** 200mAh 3.7V，**WT551218** 65mAh 3.7V，**WT651220** 85mAh 3.7，**WT651723** 150mAh 3.7V，**WT682023** 250mAh 3.7V，**WT723048** 850mAh 3.7，**WT532030** 200mAh 3.7V，**WT802035** 380mAh 3.7V，**WT852540** 650mAh 3.7V，**18500** 1100mAh 7.4V，**823048**-1000 3.7V 1000mAh， **WT 601522** 3.7V 120mA，**WT701720** 140mAh 3.7V **INR18650** 1500mAh 18.5V，**INR18650** 5.2Ah 14.8V，**18650** 7.8Ah 14.8V INR20650 3350mAh,INR 18650 2.6Ah 11.1V
M	联合国《关于危险品货物运输的建议书》 UN"Recommendations on the TRANSPORT OF DANGEROUS GOODS"
紧急联系电话 Emergency telephone call	(24H)：+86-20-36865508,36865501,36865502，36865505

Approved by： Reviewed by： Issue Date：

批准：Crystal Xu 审核：ZhongHua 签发日期：2023.01.01

COMPOSITION / INFORMATION ON INGREDIENTS

2 样品所含元素的含量及危险性一览表

Chemical name	CAS No.	Concentration%
Graphite	7782-42-5	16.73%
Copper	7440-50-8	11.58%
Iron	7439-89-6	19.81%
Aluminum	7429-90-5	5.36%
Nickel	7440-02-0	0.95%
Lithium Cobalt Oxide($CoLiO_2$)	12190-79-3	2.24%
Manganese oxide(MnO)	1344-43-0	8.44%
Cobalt oxide	11104-61-3	5.88%
Nickel oxide	1313-99-1	14.66%
Sodium carboxymethyl cellulose	9004-32-4	0.37%
Butadiene-styrene copolymer	9003-55-8	0.40%
Polyvinylidene Fluoride	24937-79-9	0.65%
Polypropylene	9003-07-0	2.39%
Ethylene carbonate(EC)	94-49-1	3.22%
Dimethyl carbonate	616-38-6	3.22%
Diethyl carbonate(DEC)	105-58-8	3.22%
Phosphate(1-), hexafluoro-, lithium	21324-40-3	0.88%

3. Hazard Identification

Effects：ACUTE(short term):see Section 8 for exposure controls in the event that this battery has been ruptured, the electrolyte solution contained within the battery would be corrosive and can cause burns

Inhalation: Inhalation of materials form a sealed battery is not an expected route of exposure.Vapors or mists from a ruptured battery may cause respiratory irritation.

Ingestion: Swallowing of materials from a sealed battery is not an expected route of exposure.Swallowing the contents of an open battery can cause serious chemical burns of mouth,esophagus, and gastrointestinal tract.

Skin: Contact between the battery and skin will not cause any harm.Skin contact with contents of an open battery can cause severe irritation or burns to the skin.

Eye: Contact between the battery and the eye will not cause any harm. Eye contact with contents of an open battery can cause severe irritation or burns to the eye.

Chronic(long term):see Section 11 for additional toxicological data

4. First aid measures（急救措施）

The product contains organic electrolyte. In case of electrolyte leakage from the battery, actions described below are required.

Eye contact ：If eye contact with contents of an open battery occurs,immediately flush the contaminated eye(s) with lukewarm gently flowing water for at least 30minuted,while holding the eyelids open. Neutral saline solution may be used as soon as it is available.If necessary, continue flushing during transport to emergency care facility.Take care not to rinse contaminated water into the unaffected eye or onto face.Quickly transport victim to an emergency care facility

Skin contact ： If skin contact with contents of an open battery occurs, as quickly as possible remove contaminated clothing, shoes and leather goods. Immediately flush with lukewarm, gently flowing water for at least 30minuted. If irritation or pain persists, seek medical attention.Completely decontaminate clothing, shoes and leather goods before reuse or discard.

Inhalation ： If contents of an opened battery are inhaled, remove source of contamination or move victim to fresh air.Obtain medical advice.

5. Fire-fighting measures（灭火措施）

CO_2 extinguishers or copious quantities of water-based foam can be used to cool down burning lithium cells and batteries, as long as the extend of the fire has not progressed to the point that the lithium metal they contain is exposed.

6. Accidental release measures（突发事故处理措施）

Measures for electrolyte leakage from the battery

—Take up with absorbent cloth.

—Move the battery away from the fire

7. Handling and Storage （处理和储存）

Handling: Do not open,dissemble, crush or burn battery. Ensure good ventilation/exhaustion at the workplace.
Prevent formation of dust.
Information about protection against explosions and fires,keep ignition sources away-Do not smoke

Storage： Keep at room temperature(+5 to +25℃) and 65±5% relative humidity.
Elevated temperature can result in shortened battery life.
Keep out of reach of children
Do not store together with oxidizing and acidic materials

8.Exposure controls/personal protection(个人保护)

Respiratory protection:In all fire situations, use self-contained breathing apparatus
Hand protection: In the event of leakage wear gloves.
Eye protection: Safety glasses are recommended during handling.
Other: In the event of leakage, wear chemical apron.

9. Physical and chemical properties(物理和化学特性)

Appearance ： Cylindrical shape
Nominal voltage ： 3.2V/3.7V/7.4V/11.1V/12.8V/14.8V etc.
Ref. No：WTS2008-1666-1/2
Odour：If leaking,smells of medical ether
Flash Point:Not applicable unless individual components exposed
Flammability：Not applicable unless individual components exposed
Relative density：Not applicable unless individual components exposed
Solubility(water)：Not applicable unless individual components exposed
Solubility(other)：Not applicable unless individual components exposed

10. Stability and reactivity （稳定性和反应性）

Stability	The product is stable under normal conditions
Conditions to Avoid	Avoid exposing the battery to fire or high temperature.Do not disassemble,crush,short or install with incorrect polarity.Avoid mechanical or electrical abuse.
Incompatible Materials	Not Available
Hazardous Decomposition products	This material may release toxic fumes if burned or exposed to fire
Possibility of Hazardous Reaction	Not Available

11. Toxicological information（有毒有害信息）

Irritation	Risk of irritation occurs only if the cell is mechanically, thermally or electrically abused to the point of compromising the enclosure. If this occurs, irritation to the skin,eyes and respiratory tract may occur.
Sensitization	Not Available
Neurological Effects	Not Available
Teratogenicity	Not Available
Reproductive Toxicity	Not Available
Mutagenicity	Not Available
Toxicologically Synergistic Materials	Not Available

12. Ecological information（生态学信息）

General note:	Water hazard class1(Self-assessment):slightly hazardous for water. Do not allow undiluted product of large quantities of it to reach ground water, water course or sewage system
Eco-toxicity	Not Available
Mobility	Not Available

Persistence & Degradability	Not Available
Bioaccumulation	Not Available
Other adverse Effects	Not Available

13. Disposal consideration（回收考虑）

—When the battery is worn out, dispose of it under the ordinance of each local government the low issued by relating government.

—Disposal of the worn-out battery may be subjected to Collection and Recycling Regulation.

14. Transport information（运输信息）

—According to PACKING INSTRUCTION 965~967 of IATA DGR64nd Edition for transportation the special provision 188 of IMDG(inc Amdt 40-20). The batteries should be securely packed and protected against short-circuits. Examine whether the package of the containers are integrate and tighten closed before transport. Take in a cargo of them without falling, dropping, and breakage. Prevent collapse of cargo piles and wet by rain. The transport vehicle and ship must be cleaned and sterilized otherwise it is not allowed to assemble articles. During transport, the vehicle should prevent exposure, rain and high temperature. For stopovers, the vehicle should be away form fire and heat sources. When transported by sea, the assemble place should keep away form bedroom and kitchen, and isolated form the engine room, power and fire source. Under the condition of Road Transportation, the driver should drive in accordance with regulated route, don't stop over in the residential area and congested area.

UN Number： 3480/3481

Number of dangerous goods：9

Lithium ion cell/battery：

Lithium ion cell/battery=UN3480 with section II of PI965

Lithium ion cell/battery packed with equipment=UN3481 with section II of PI966

Lithium ion cell/battery contained in equipment=UN3481 with section II of PI967

Lithium ion：

Content in Watt-hour(Wh) and

Lithium ion cell=less than 20Wh per cell

Lithium ion battery=less than 100Wh per Battery

Every package should meet below condition and stick lithium ion operating label:

1. Less than 2.7Wh(=2.5kg)

2. More than 2.7Wh≤Lithium ion cell≤20Wh(=8 pcs cell)

3. More than 2.7Wh≤Lithium ion battery pack≤100Wh(=2 battery packs)

15. Regulation information（法规信息）

—IATA Dangerous Goods Regulations 64nd Edition Effective；

—ICAO Technical Instructions for the safe transport of dangerous goods by air

16. Other information（其他信息）

References

—UN Recommendations on the Transportation of Dangerous Goods Model Regulations

(ST/SG/AC, 10/11/Rev.5)

—IATA Dangerous Goods Regulations 64nd Edition Effective；

Attention：

- Do not immerse, throw, and wet battery in water/ seawater, and store in the dry area with low temperature for long term storage.
- Do not use or leave battery close to high temperature area, such as fire, heater etc..
- When charging the battery, use dedicated chargers and follow the specified conditions.
- Do not place battery in a device with the (+) and (-) in the wrong way around.
- Do not connect battery directly to an electric outlet.
- Do not heat or throw battery into a fire or heater.
- Do not short circuit the (+) and (-) terminals with other metals.
- Do not put batteries together with metal objects, such as necklaces, hairpins, coins, or screws, in storage or transportation.
- Do not hit with a hammer, step on or throw or drop to cause strong shock.
- Do not pierce battery with a sharp object such as a needle.
- Do not use or leave battery under high temperature conditions, such as under direct sunshine or inside of a car where temperature may be very high, or else it may shorten the cycle life or cause the battery abnormal heat, catch fire, disfunction.
- Do not use battery under strong static or strong magnetic field, or else the safety device may be destroyed.
- If liquid leaking from the battery gets into your eyes, do not rub your eyes. Wash them well with clean water and go to see a doctor immediately.
- Stop using the battery if abnormal heat, odor, discoloration, deformation or abnormal condition is detected.

-Clean the dirty electrode of the battery before use, or else it may be cause bad contact or disfunction.

-Pack the electrode of disassemble battery with insulated paper to prevent catching fire.