



SAFETY DATA SHEET

SLIM™ LED Emergency Lights

SDS EXEMPTION NOTICE:

The battery powered products, and the batteries they contain, covered in this document are exempt articles and are not subject to the OSHA Hazard Communication Standard requirement. This sheet is provided as a service to our customers.

Safety Data Sheets (SDS) are a sub-requirement of the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard, 29 CFR Subpart 1910.1200. This Hazard Communication Standard does not apply to various subcategories including anything defined by OSHA as an "article." OSHA has defined "article" as a manufactured item other than a fluid or particle; (i) which is formed to a specific shape or design during manufacture; (ii) which has end use function(s) dependent in whole or in part upon its shape or design during end use; and (iii) which under normal conditions of use does not release more than very small quantities, e.g. minute or trace amounts of a hazardous chemical, and does not pose a physical hazard or health risk to employees.

Because all of our battery powered products and the batteries they contain are defined as "articles", they are exempt from the requirements of the Hazard Communication Standard; hence an OSHA SDS in accordance with the Global Harmonized System (GHS) is not required.

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name SLIM™ LED Emergency Lights

Other means of identification

Synonyms SLIM™ 400 LED Emergency Light; Item No. 20-12455
SLIM™ 1100 LED Emergency Light; Item No. 20-12454

Recommended use of the chemical and restrictions on use

Recommended Use Portable lighting for outdoor, camping, and emergency use.

Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier Name UST Brands
Supplier Address 7720 Philips Highway
Jacksonville
Florida
32256
USA
Supplier Phone Number Phone:904-786-0033
Fax:904-786-0890
Supplier Email sales@ustbrands.com

Emergency Response Information (ERI) telephone number

ERI Provider: INFOTRAC

USA or Canada: 1-800-535-5053

International: 001-352-323-3500



SAFETY DATA SHEET

SLIM™ LED Emergency Lights

2. HAZARDS IDENTIFICATION

Lithium Ion Batteries Contained in Equipment, UN3481

CAUTION: LITHIUM BATTERIES INSIDE. This equipment contains one (1) Secondary (Rechargeable) Lithium battery. The battery is sealed in the equipment and cannot be removed or replaced unless the equipment is damaged or abused. Do not damage or mishandle the packages. If package is damaged, flammability hazard may exist; equipment must be quarantined, inspected, and repacked.

CAUTION: Batteries inside the equipment can explode or leak if heated, disassembled, shorted, recharged, exposed to fire or high temperature or inserted incorrectly. Do not remove batteries from equipment. Do not carry batteries loose in your pocket or purse. Keep this equipment and the batteries contained inside away from children. If swallowed, consult a physician at once. Under certain misuse conditions and by abusively opening the battery, exposed lithium can react with water or moisture in the air causing potential thermal burns or fire.

Physical Appearance: The equipment contains a small rectangular shaped battery pack. The battery and its contents present the hazard. The battery is sealed inside the equipment and can only be removed if the equipment is damaged or abused. The battery is not replaceable and should never be removed from the equipment.

Battery Description:

SLIM 400 LED Emergency Light; Item No. 20-12455

Battery Model: ICR18650-2000mAh

Battery Type: Polymer Lithium Ion Typical Capacity: 2000 mAh Nominal Voltage: 3.7 V

Watt-hours (Wh) = 2000 mAh x (1 A/1000 mA) x 3.7 V = 7.4 Wh

"Equivalent" Lithium Content = 2000 mAh x (1 A/1000 mA) X (0.3 grams/A) = 0.6 grams

SLIM 1100 LED Emergency Light; Item No. 20-12454

Battery Model: ICR18650-4000mAh

Battery Type: Polymer Lithium Ion Typical Capacity: 4000 mAh Nominal Voltage: 3.7 V

Watt-hours (Wh) = 4000 mAh x (1 A/1000 mA) x 3.7 V = 14.8 Wh

"Equivalent" Lithium Content = 4000 mAh x (1 A/1000 mA) X (0.3 grams/A) = 1.2 grams

REFER TO BATTERY MANUFACTURER'S MSDS, SDS, AND/OR PRODUCT INFORMATION SHEET ATTACHED.

3. COMPOSITION/INFORMATION ON INGREDIENTS

REFER TO BATTERY MANUFACTURER'S MSDS, SDS, AND/OR PRODUCT INFORMATION SHEET ATTACHED.

4. FIRST AID MEASURES

REFER TO BATTERY MANUFACTURER'S MSDS, SDS, AND/OR PRODUCT INFORMATION SHEET ATTACHED.

5. FIRE-FIGHTING MEASURES

REFER TO BATTERY MANUFACTURER'S MSDS, SDS, AND/OR PRODUCT INFORMATION SHEET ATTACHED.

6. ACCIDENTAL RELEASE MEASURES

REFER TO BATTERY MANUFACTURER'S MSDS, SDS, AND/OR PRODUCT INFORMATION SHEET ATTACHED.



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SLIM™ LED Emergency Lights

7. HANDLING AND STORAGE

CAUTION:

Do not immerse in water.

CONTAINS RECHARGEABLE LITHIUM-ION BATTERY.

Do not crush, puncture, disassemble, heat above 120°F (50°C), or put in fire. Do not short circuit or modify. Misuse can cause fire, explosion, and personal injury. Battery is NOT replaceable. Dispose of or recycle properly in accordance with local regulations.

USE ONLY AS DIRECTED.

KEEP OUT OF REACH OF CHILDREN.

REFER TO BATTERY MANUFACTURER'S MSDS, SDS, AND/OR PRODUCT INFORMATION SHEET ATTACHED.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

REFER TO BATTERY MANUFACTURER'S MSDS, SDS, AND/OR PRODUCT INFORMATION SHEET ATTACHED.

9. PHYSICAL AND CHEMICAL PROPERTIES

REFER TO BATTERY MANUFACTURER'S MSDS, SDS, AND/OR PRODUCT INFORMATION SHEET ATTACHED.

10. STABILITY AND REACTIVITY

REFER TO BATTERY MANUFACTURER'S MSDS, SDS, AND/OR PRODUCT INFORMATION SHEET ATTACHED.

11. TOXICOLOGICAL INFORMATION

REFER TO BATTERY MANUFACTURER'S MSDS, SDS, AND/OR PRODUCT INFORMATION SHEET ATTACHED.

12. ECOLOGICAL INFORMATION

REFER TO BATTERY MANUFACTURER'S MSDS, SDS, AND/OR PRODUCT INFORMATION SHEET ATTACHED.

13. DISPOSAL CONSIDERATIONS

REFER TO BATTERY MANUFACTURER'S MSDS, SDS, AND/OR PRODUCT INFORMATION SHEET ATTACHED.

14. TRANSPORT INFORMATION

Lithium Ion Batteries Contained in Equipment, UN3481

Transportation in the United States (Reference DOT Regulation 49 CFR parts 171-178)

Lithium Ion Batteries Contained in Equipment: UN3481. When packaged and labeled in compliance with 49CFR173.185(c) as amended Mar 30/2017 (<20 Wh for lithium ion cell; <100 Wh for lithium ion battery), these items are otherwise "excepted" from the requirements of the regulations.

Transportation Internationally (Reference IATA Dangerous Goods Regulations)

Lithium Ion Batteries Contained in Equipment: UN3481, Packing Instruction 967, Section II (<20 Wh for lithium ion cell; <100 Wh for lithium ion battery). This regulation applies to "small" lithium batteries contained in equipment that when packaged and labeled as described in Packing Instruction 967 are otherwise "excepted" from the requirements of the regulations.

The transportation of lithium ion batteries contained in equipment is regulated as UN3481 by US DOT (road), IATA (air), and IMO (marine). However, the listed lithium ion batteries contained in equipment are not subject to the other provisions of the regulations as long as they are packaged and labeled in accordance with the regulations.

Your selected air, truck, rail or sea carrier may have additional documentation or pre-authorization requirements. Check with



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SLIM™ LED Emergency Lights

your selected carrier before shipping.

REFER TO BATTERY MANUFACTURER'S MSDS, SDS, AND/OR PRODUCT INFORMATION SHEET ATTACHED.

15. REGULATORY INFORMATION

California Proposition 65

WARNING: This product can expose you to chemicals including lead and lead compounds, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

REFER TO BATTERY MANUFACTURER'S MSDS, SDS, AND/OR PRODUCT INFORMATION SHEET ATTACHED.

16. OTHER INFORMATION

REFER TO BATTERY MANUFACTURER'S MSDS, SDS, AND/OR PRODUCT INFORMATION SHEET ATTACHED.

Disclaimer of Liability: Since conditions or methods of use are beyond our control, we do not assume any responsibility and expressly disclaim any liability for any use of this product. The information contained in this SDS is believed to be true and accurate. All statements or suggestions are made without warranty, express or implied, regarding the accuracy of the information, the hazards connected with the use of the product, or the results to be obtained from the use thereof. Compliance with all federal, state, and local laws and regulations remains the responsibility of the user.

User Responsibility: This SDS cannot cover all possible situations which the distributor, retailer, or end user may experience during transport, storage, processing, or use. The user should examine each aspect of his operation and determine if additional precautions should be taken. All health and safety information contained in this SDS should be provided to the user's employees or customers. It is the user's responsibility to use this information to develop appropriate work practice guidelines and employee training programs for his operation.

End of Safety Data Sheet




MATERIAL SAFETY DATA SHEET

Lithium-ion Battery

Model: ICR18650-2000mAh

Prepared by	Approved by
Lingling Chen	Fenzhi Shi
Date: Dec. 5, 2017	Date: Dec. 5, 2017





Material Safety Data Sheet

Section 1-Chemical Product and Company Identification

Product Identification

Lithium-Ion Polymer battery

Norminal Voltage : 3.7V
Equivalent Lithium content : ≤ 20 Wh
Weight: : 45g
Power: : 7.4Wh
Testing Period : Dec. 3, 2017 To Dec.9, 2017

Manufacturer

Shenzhen Pow-tech New Power Co., Ltd
Rm 1204, Tower 3, Zhuoyue Meilin central square, Zhongkang Road,
Shangmeilin area, Futian District, Shenzhen, China
Postcode : 523000
Telephone : +86-755-82721259
Fax : +86-755-82721250
E-mail : luisa-wang@szpowtech.com.cn



**Section 2-Hazards Identification**

Preparation hazards and classification	Not dangerous with normal use. Do not dismantle, open or shred Li-ion Battery. Exposure to the ingredients contained within or their ingredients products could be harmful.
Appearance, Color, and Odor	Solid object with no odor, no color.
Primary Route(s) of Exposure	These chemicals are contained in a sealed stainless steel enclosure. Risk of exposure occurs only if the cell is mechanically, thermally or electrically abused to the point of compromising the enclosure. If this occurs, exposure to the electrolyte solution contained within can occur by Inhalation, Ingestion, Eye contact and Skin contact.
Potential Health 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 from 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
Medical Conditions Aggravated by Exposure	Not applicable
Reported as carcinogen	Not applicable

**Section 3-Composition/Information on Ingredients**

Chemical Composition	Molecular Formula	Weight%	CAS No	OSHA(PEL)	ACGIH(TLV)
Lithium Cobalt Oxide	LiCoO ₂	35~38%	12190-79-3	N/A	N/A
Graphite powder	C	23~25%	7782-42-5	N/A	N/A
Electrolyte	LiPF ₆ C ₃ H ₄ O ₃ C ₄ H ₆ O ₃ C ₃ H ₁₀ O ₃	12~15%	21324-40-3	N/A	N/A
Polyethylene	(C ₂ H ₄) _n	0.5~1%	9002-88-4	N/A	N/A
Cu	Cu	5~10%	7440-50-8	N/A	N/A
Nickel	Nickel	2~3%	7440-02-0	N/A	N/A
Polyvinylidene fluoride	(CH ₂ CF ₂) _n	0.5~2%	24937-79-9	N/A	N/A
Polypropylene	(C ₃ H ₆) _n	2~5%	9003-07-0	N/A	N/A
Aluminum foil	Al	7~10%	7429-90-5	N/A	N/A

Section 4-First-aid Measures

Inhalation	If contents of an opened battery are inhaled, remove source of contamination or move victim to fresh air. Obtain medical advice.
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 30 minutes. If irritation or pain persists, seek medical attention. Completely decontaminate clothing, shoes and leather goods before reuse or discard.
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 30 minutes 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.
Ingestion	If ingestion of contents of an open battery occurs, never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Have victim rinse mouth thoroughly with water. DO NOT INDUCE VOMITING. Have victim drink 60 to 240 mL (2-8 oz.) of water. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Have victim rinse mouth with water again. Quickly transport victim to an emergency care facility.

Section 5-Fire Fighting Measures



Flammable Properties	In the event that this battery has been ruptured, the electrolyte solution contain within the battery would be flammable. Like any sealed container, battery cells may rupture when exposed to excessive heat; this could result in the release of flammable or corrosive materials.
Suitable extinguishing Media	Use extinguishing media suitable for the materials that are burning.
Unsuitable extinguishing Media	Not available
Explosion Data	Sensitivity to Mechanical Impact: This may result in rupture in extreme cases Sensitivity to Static Discharge: Not Applicable
Specific Hazards arising from the chemical	Fires involving Li-ion Battery can be controlled with water. When water is used, however, hydrogen gas may evolve. In a confined space, hydrogen gas can form an explosive mixture. In this situation, smothering agents are recommended to extinguish the fire
Protective Equipment and precautions for firefighters	As for any fire, evacuate the area and fight the fire from a safe distance. Wear a pressure-demand, self-contained breathing apparatus and full protective gear. Fight fire from a protected location or a safe distance. Use NIOSH/MSHA approved full-face self-contained breathing apparatus(SCBA) with full protective gear.
NFPA	Health: 0 Flammability: 0 Instability: 0

Section 6-Accidental Release Measures

Personal Precautions, protective equipment, and emergency procedures	Restrict access to area until completion of clean-up. Do not touch the spilled material. Wear adequate personal protective equipment as indicated in Section 8.
Environmental Precautions	Prevent material from contaminating soil and from entering sewers or waterways.
Methods and materials for Containment	Stop the leak if safe to do so. Contain the spilled liquid with dry sand or earth. Clean up spills



	immediately.
Methods and materials for cleaning up	Absorb spilled material with an inert absorbent (dry sand or earth). Scoop contaminated absorbent into an acceptable waste container. Collect all contaminated absorbent and dispose of according to directions in Section 13. Scrub the area with detergent and water; collect all contaminated wash water for proper disposal.

Section 7-Handling and Storage

Handling	Don't handling Li-ion Battery with metalwork. Do not open, disassemble, 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	If the Li-ion Battery are subject to storage for such a long term as more than 3 months, it is recommended to recharge the Li-ion Battery periodically. 3 months: -10°C~+40°C, 45 to 85%RH And recommended at 0°C~+35°C for long period storage. The capacity recovery rate in the delivery state (50% capacity of fully charged) after storage is assumed to be 80% or more. The voltage for a long time storage shall be 3.7V~4.2V range.
	Do not storage Li-ion Battery haphazardly in a box or drawer where they may short-circuit each other or be short-circuited by other metal objects. Keep out of reach of children. Do not expose Li-ion Battery to heat or fire. Avoid storage in direct sunlight.



	Do not store together with oxidizing and acidic materials.
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Section 8-Exposure Controls/Personal Protection

Engineering Controls	Use local exhaust ventilation or other engineering controls to control sources of dust, mist, fumes and vapor. Keep away from heat and open flame. Store in a cool, dry place.
Personal Protective Equipment	Respiratory Protection: Not necessary under normal conditions. Skin and body Protection: Not necessary under normal conditions, Wear neoprene or nitrile rubber gloves if handling an open or leaking battery. Hand protection: Wear neoprene or natural rubber material gloves if handling an open or leaking battery. Eye Protection: Not necessary under normal conditions, Wear safety glasses if handling an open or leaking battery.
Other Protective Equipment	Have a safety shower and eye wash fountain readily available in the immediate work area.
Hygiene Measures	Do not eat, drink, or smoke in work area. Maintain good housekeeping.

Section 9-Physical and Chemical Properties

Physical State	Form: Solid
	Color: White
	Odour: Monotony
Change in condition:	



pH, with indication of the concentration	Not applicable
Melting point/freezing point	Not available.
Boiling Point, initial boiling point and Boiling range:	Not available.
Flash Point	Not available.
Upper/lower flammability or explosive limits	Not available.
Vapor Pressure:	Not applicable
Vapor Density: (Air = 1)	Not applicable
Density/relative desity	Not available.
Solubility in Water:	Insoluble
n-octanol/water partition coefficient	Not available.
Auto-ignition temperature	130°C
Decomposition temperature	Not available.
Odout threshold	Not available.
Evaporation rate	Not available.
Flammability (soil, gas)	Not available.
Viscosity	Not applicable

Section 10- Stability and Reactivity

Stability	The product is stable under normal conditions.
Conditions to Avoid (e.g. static discharge, shock or vibration)	Do not subject Li-ion Battery to mechanical shock. Vibration encoutered during transportation does not cause leakage, fire or explosion. 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

Section 11-Toxicological Information

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 (Genetic Effects)	Not Available
Toxicologically Synergistic Materials	Not Available

Section 12-Ecological Information

General note:	Water hazard class 1(Self-assessment): slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Anticipated behavior of a chemical product in environment/possible environmental impact/ecotoxicity	Not Available
Mobility in soil	Not Available
Persistence and Degradability	Not Available
Bioaccumulation potential	Not Available



Other Adverse Effects	Not Available
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Section 13-Disposal Considerations

Product disposal recommendation: Observe local, state and federal laws and regulations. Packaging disposal recommendation: Be aware discarded batteries may cause fire, tape the battery terminals to insulate them. Don't disassembly the battery. Completely discharge containers (no tear drops, no powder rest, scraped carefully). Containers may be recycled or re-used. Observe local, state and federal laws and regulations.

The potential effects on the environment and human health of the substances used in batteries and accumulations; the desirability of not disposing of waste batteries and accumulators as unsorted municipal waste and of participating in their separate collection so as to facilitate treatment and recycling.

Section 14-Transport Information

This report applies to by sea, by air and by land;
The Li-ion Battery tested according to the requirements of the 5th revised edition of the UN manual of tests and Criteria, Part III, subsection 38.3;
Lithium ion battery was protected so as to prevent short circuits. This includes protection against contact with conductive materials within the same packaging that could lead to short circuit;
The LITHIUM ION BATTERY according to Section II/IA/IB of PACKING INSTRUCTION 965/ 966 /967 of the 2018 IATA Dangerous Goods regulations 59th Edition may be transported and applicable U.S.DOT regulations for the safe transport of Li-ion Battery.

More information concerning shipping, testing, marking and packaging can be obtained from label master at <http://www.labelmaster.com/>.

The packaging shall be adequate to avoid mechanical damage during transport, handling and stacking. The materials and pack design shall be chosen so as to prevent the development of unintentional electrical conduction, corrosion of the terminals and ingress of moisture.

The package must be handled with care and that a flammability hazard exists if the package is damaged; Each package must be labeled with a Li-ion Battery handling label or in addition to the Class 9 hazard label. With regard to transport, the following regulations are cited and considered:

- The International Civil Aviation Organization (ICAO) Technical Instructions.
- The International Air transport Association (IATA) Dangerous Goods Regulations. UN number of lithium battery: UN3480 or UN3481;

UN Proper shipping name/Description (technical name): Lithium ion batteries or Lithium ion polymer batteries contained in equipment or packed with equipment;



UN Classification (Transport hazard class): Non dangerous;
 Marine pollutant (Y/N): N;
 - The International Maritime Dangerous Goods (IMDG) Code.
 For lithium-ion batteries by sea, provided that packaging is strong and prevent the products from short-circuit. UN number of lithium battery: UN3480 or UN3481;
 UN Proper shipping name/Description (technical name): Lithium ion batteries or Lithium ion polymer batteries contained in equipment or packed with equipment;
 UN Classification (Transport hazard class): Non dangerous; Marine pollutant (Y/N): Y;
 Special Provision: International maritime dangerous goods code (IMDG) 188, 230, 310, 348, 957;
 - The US Hazardous Materials Regulation (HMR) pursuant to a final rule issued by RSPA
 - The Office of Hazardous Materials Safety within the US Department of Transportations' (DOT) Research and Special Programs Administration (RSPA)

Section 15-Regulatory Information

OSHA hazard communication standard (29 CFR 1910.1200)

_____ Hazardous V Non-hazardous

Section 16-Other Information

The information above is believed to be accurate and represents the best information currently available to us. However, concorde makes no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. Although reasonable precautions have been taken in the preparation of the data contained herein, it is offered solely for your information, consideration of investigation. This material safety data sheet provides guidelines for the safe handling and use of this product; it does not and cannot advise on all possible situations, therefore, your specific use of this product should be evaluated to determine if additional precautions are required.

The data/information contained herein has been reviewed and approved for general release on the basis that this document contains no export controlled information.




MATERIAL SAFETY DATA SHEET

Lithium-ion Battery

Model: ICR18650-4000mAh

Prepared by	Approved by
Lingling Chen	Fenzhi Shi
Date: Dec. 5, 2017	Date: Dec. 5, 2017





Material Safety Data Sheet

Section 1-Chemical Product and Company Identification

Product Identification

Lithium-Ion Polymer battery

Norminal Voltage : 3.7V
Equivalent Lithium content : $\leq 20\text{Wh}$
Weight: : 115g
Power: : 14.8Wh
Testing Period : Dec. 3, 2017 To Dec.9, 2017

Manufacturer

Shenzhen Pow-tech New Power Co., Ltd
Rm 1204, Tower 3, Zhuoyue Meilin central square, Zhongkang Road,
Shangmeilin area, Futian District, Shenzhen, China
Postcode : 523000
Telephone : +86-755-82721259
Fax : +86-755-82721250
E-mail : luisa-wang@szpowtech.com.cn



**Section 2-Hazards Identification**

Preparation hazards and classification	Not dangerous with normal use. Do not dismantle, open or shred Li-ion Battery. Exposure to the ingredients contained within or their ingredients products could be harmful.
Appearance, Color, and Odor	Solid object with no odor, no color.
Primary Route(s) of Exposure	These chemicals are contained in a sealed stainless steel enclosure. Risk of exposure occurs only if the cell is mechanically, thermally or electrically abused to the point of compromising the enclosure. If this occurs, exposure to the electrolyte solution contained within can occur by Inhalation, Ingestion, Eye contact and Skin contact.
Potential Health 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 from 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
Medical Conditions Aggravated by Exposure	Not applicable
Reported as carcinogen	Not applicable

**Section 3-Composition/Information on Ingredients**

Chemical Composition	Molecular Formula	Weight%	CAS No	OSHA(PEL)	ACGIH(TLV)
Lithium Cobalt Oxide	LiCoO ₂	35~38%	12190-79-3	N/A	N/A
Graphite powder	C	23~25%	7782-42-5	N/A	N/A
Electrolyte	LiPF ₆ C ₃ H ₄ O ₃ C ₄ H ₆ O ₃ C ₃ H ₁₀ O ₃	12~15%	21324-40-3	N/A	N/A
Polyethylene	(C ₂ H ₄) _n	0.5~1%	9002-88-4	N/A	N/A
Cu	Cu	5~10%	7440-50-8	N/A	N/A
Nickel	Nickel	2~3%	7440-02-0	N/A	N/A
Polyvinylidene fluoride	(CH ₂ CF ₂) _n	0.5~2%	24937-79-9	N/A	N/A
Polypropylene	(C ₃ H ₆) _n	2~5%	9003-07-0	N/A	N/A
Aluminum foil	Al	7~10%	7429-90-5	N/A	N/A

Section 4-First-aid Measures

Inhalation	If contents of an opened battery are inhaled, remove source of contamination or move victim to fresh air. Obtain medical advice.
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 30 minutes. If irritation or pain persists, seek medical attention. Completely decontaminate clothing, shoes and leather goods before reuse or discard.
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 30 minutes 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.
Ingestion	If ingestion of contents of an open battery occurs, never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Have victim rinse mouth thoroughly with water. DO NOT INDUCE VOMITING. Have victim drink 60 to 240 mL (2-8 oz.) of water. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Have victim rinse mouth with water again. Quickly transport victim to an emergency care facility.

Section 5-Fire Fighting Measures



Flammable Properties	In the event that this battery has been ruptured, the electrolyte solution contain within the battery would be flammable. Like any sealed container, battery cells may rupture when exposed to excessive heat; this could result in the release of flammable or corrosive materials.
Suitable extinguishing Media	Use extinguishing media suitable for the materials that are burning.
Unsuitable extinguishing Media	Not available
Explosion Data	Sensitivity to Mechanical Impact: This may result in rupture in extreme cases Sensitivity to Static Discharge: Not Applicable
Specific Hazards arising from the chemical	Fires involving Li-ion Battery can be controlled with water. When water is used, however, hydrogen gas may evolve. In a confined space, hydrogen gas can form an explosive mixture. In this situation, smothering agents are recommended to extinguish the fire
Protective Equipment and precautions for firefighters	As for any fire, evacuate the area and fight the fire from a safe distance. Wear a pressure-demand, self-contained breathing apparatus and full protective gear. Fight fire from a protected location or a safe distance. Use NIOSH/MSHA approved full-face self-contained breathing apparatus(SCBA) with full protective gear.
NFPA	Health: 0 Flammability: 0 Instability: 0

Section 6-Accidental Release Measures

Personal Precautions, protective equipment, and emergency procedures	Restrict access to area until completion of clean-up. Do not touch the spilled material. Wear adequate personal protective equipment as indicated in Section 8.
Environmental Precautions	Prevent material from contaminating soil and from entering sewers or waterways.
Methods and materials for Containment	Stop the leak if safe to do so. Contain the spilled liquid with dry sand or earth. Clean up spills



	immediately.
Methods and materials for cleaning up	Absorb spilled material with an inert absorbent (dry sand or earth). Scoop contaminated absorbent into an acceptable waste container. Collect all contaminated absorbent and dispose of according to directions in Section 13. Scrub the area with detergent and water; collect all contaminated wash water for proper disposal.

Section 7-Handling and Storage

Handling	Don't handling Li-ion Battery with metalwork. Do not open, disassemble, 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	If the Li-ion Battery are subject to storage for such a long term as more than 3 months, it is recommended to recharge the Li-ion Battery periodically. 3 months: -10°C~+40°C, 45 to 85%RH And recommended at 0°C~+35°C for long period storage. The capacity recovery rate in the delivery state (50% capacity of fully charged) after storage is assumed to be 80% or more. The voltage for a long time storage shall be 3.7V~4.2V range.
	Do not storage Li-ion Battery haphazardly in a box or drawer where they may short-circuit each other or be short-circuited by other metal objects. Keep out of reach of children. Do not expose Li-ion Battery to heat or fire. Avoid storage in direct sunlight.



	Do not store together with oxidizing and acidic materials.
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Section 8-Exposure Controls/Personal Protection

Engineering Controls	Use local exhaust ventilation or other engineering controls to control sources of dust, mist, fumes and vapor. Keep away from heat and open flame. Store in a cool, dry place.
Personal Protective Equipment	Respiratory Protection: Not necessary under normal conditions. Skin and body Protection: Not necessary under normal conditions, Wear neoprene or nitrile rubber gloves if handling an open or leaking battery. Hand protection: Wear neoprene or natural rubber material gloves if handling an open or leaking battery. Eye Protection: Not necessary under normal conditions, Wear safety glasses if handling an open or leaking battery.
Other Protective Equipment	Have a safety shower and eye wash fountain readily available in the immediate work area.
Hygiene Measures	Do not eat, drink, or smoke in work area. Maintain good housekeeping.

Section 9-Physical and Chemical Properties

Physical State	Form: Solid
	Color: White
	Odour: Monotony
Change in condition:	



pH, with indication of the concentration	Not applicable
Melting point/freezing point	Not available.
Boiling Point, initial boiling point and Boiling range:	Not available.
Flash Point	Not available.
Upper/lower flammability or explosive limits	Not available.
Vapor Pressure:	Not applicable
Vapor Density: (Air = 1)	Not applicable
Density/relative desity	Not available.
Solubility in Water:	Insoluble
n-octanol/water partition coefficient	Not available.
Auto-ignition temperature	130°C
Decomposition temperature	Not available.
Odout threshold	Not available.
Evaporation rate	Not available.
Flammability (soil, gas)	Not available.
Viscosity	Not applicable

Section 10- Stability and Reactivity

Stability	The product is stable under normal conditions.
Conditions to Avoid (e.g. static discharge, shock or vibration)	Do not subject Li-ion Battery to mechanical shock. Vibration encoutered during transportation does not cause leakage, fire or explosion. 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

Section 11-Toxicological Information

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
Teratoaenicity	Not Available
Reproductive Toxicity	Not Available
Mutagenicity (Genetic Effects)	Not Available
Toxicologically Synergistic Materials	Not Available

Section 12-Ecological Information

General note:	Water hazard class 1(Self-assessment): slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Anticipated behavior of a chemical product in environment/possible environmental impace/ecotoxicity	Not Available
Mobility in soil	Not Available
Persistence and Degradability	Not Available
Bioaccumulation potential	Not Available



Other Adverse Effects	Not Available
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Section 13-Disposal Considerations

Product disposal recommendation: Observe local, state and federal laws and regulations. Packaging disposal recommendation: Be aware discarded batteries may cause fire, tape the battery terminals to insulate them. Don't disassembly the battery. Completely discharge containers (no tear drops, no powder rest, scraped carefully). Containers may be recycled or re-used. Observe local, state and federal laws and regulations.

The potential effects on the environment and human health of the substances used in batteries and accumulations; the desirability of not disposing of waste batteries and accumulators as unsorted municipal waste and of participating in their separate collection so as to facilitate treatment and recycling.

Section 14-Transport Information

This report applies to by sea, by air and by land;
The Li-ion Battery tested according to the requirements of the 5th revised edition of the UN manual of tests and Criteria, Part III, subsection 38.3;
Lithium ion battery was protected so as to prevent short circuits. This includes protection against contact with conductive materials within the same packaging that could lead to short circuit;
The LITHIUM ION BATTERY according to Section II/IA/IB of PACKING INSTRUCTION 965/ 966 /967 of the 2018 IATA Dangerous Goods regulations 59th Edition may be transported and applicable U.S.DOT regulations for the safe transport of Li-ion Battery.

More information concerning shipping, testing, marking and packaging can be obtained from label master at <http://www.labelmaster.com/>.

The packaging shall be adequate to avoid mechanical damage during transport, handling and stacking. The materials and pack design shall be chosen so as to prevent the development of unintentional electrical conduction, corrosion of the terminals and ingress of moisture.

The package must be handled with care and that a flammability hazard exists if the package is damaged; Each package must be labeled with a Li-ion Battery handling label or in addition to the Class 9 hazard label. With regard to transport, the following regulations are cited and considered:

- The International Civil Aviation Organization (ICAO) Technical Instructions.
- The International Air transport Association (IATA) Dangerous Goods Regulations. UN number of lithium battery: UN3480 or UN3481;

UN Proper shipping name/Description (technical name): Lithium ion batteries or Lithium ion polymer batteries contained in equipment or packed with equipment;



UN Classification (Transport hazard class): Non dangerous;
 Marine pollutant (Y/N): N;
 - The International Maritime Dangerous Goods (IMDG) Code.
 For lithium-ion batteries by sea, provided that packaging is strong and prevent the products from short-circuit. UN number of lithium battery: UN3480 or UN3481;
 UN Proper shipping name/Description (technical name): Lithium ion batteries or Lithium ion polymer batteries contained in equipment or packed with equipment;
 UN Classification (Transport hazard class): Non dangerous; Marine pollutant (Y/N): Y;
 Special Provision: International maritime dangerous goods code (IMDG) 188, 230, 310, 348, 957;
 - The US Hazardous Materials Regulation (HMR) pursuant to a final rule issued by RSPA
 - The Office of Hazardous Materials Safety within the US Department of Transportations' (DOT) Research and Special Programs Administration (RSPA)

Section 15-Regulatory Information

OSHA hazard communication standard (29 CFR 1910.1200)

_____ Hazardous V Non-hazardous

Section 16-Other Information

The information above is believed to be accurate and represents the best information currently available to us. However, concorde makes no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. Although reasonable precautions have been taken in the preparation of the data contained herein, it is offered solely for your information, consideration of investigation. This material safety data sheet provides guidelines for the safe handling and use of this product; it does not and cannot advise on all possible situations, therefore, your specific use of this product should be evaluated to determine if additional precautions are required.

The data/information contained herein has been reviewed and approved for general release on the basis that this document contains no export controlled information.