

MATERIAL SAFETY DATA SHEET MSDS

XCell Work Cube

Product Name: Lithium-ion battery
Nominal Voltage: 3.7V
Typical Capacity: 1200mAh, 4.44Wh
Weight: 23.4g
Dimension: (40.0 X 30.0 X 10.0)mm (L×W×H)
Report No. NCT24050323M1-1

1. Hazards Identification

Classification according to GHS Not a dangerous substance according to GHS
Hazard Description Not dangerous with normal use. Do not dismantle, open or shred the battery ingredients contained within or their ingredients products could be harmful.
Primary Route(s) of Exposure Inhalation, Ingestion, Skin contact and Eye contact.
Health Hazard In case of abuse, there's Hazard of rupture, fire, heat, leakage of internal components
Contact with the electrolyte of battery may be irritating to skin, eyes and mucous tissue. Combustion may produce irritating, corrosive and/or toxic gases. Fumes may cause dizziness or suffocation.

2. Composition/Information on Ingredients

Chemical Name	Concentration or concentration ranges (%)	CAS Number
Lithium Cobalt Oxide	38	12190-79-3
Graphite	20	7782-42-5
Copper	9	7440-50-8
Aluminum	5	7429-90-5
Ethylene carbonate	14	96-49-1
Polypropylene	5	9003-07-0
Carbonate, methyl ethyl	4	623-53-0
Phosphate(1-), hexafluoro-, lithium	5	21324-40-3

Note: CAS number is Chemical Abstract Service Registry Number.
N/A=Not apply.

3. First Aid Measures

Inhalation If the internal materials of battery are inhaled, remove from scene immediately to fresh air. If breathing is difficult, give oxygen and seek medical attention immediately.
Ingestion Do not induce vomiting if the internal materials of battery are swallowed and seek medical attention immediately.
Skin contact If in contact with the internal materials of battery, remove the contaminated clothing, shoes and socks, immediately flush with plenty of water for more than 20 minutes, seek medical attention immediately.
Eye contact If in contact with the internal materials of battery, turn up the upper and lower eyelids, rinse with running water for more than 20 minutes, seek medical attention immediately

4. Fire Fighting Measures

Characteristics of Hazard	Fumes may cause dizziness or suffocation.
Hazardous Combustion Products	Carbon monoxide, carbon dioxide, lithium oxide fumes and so on.
Fire-extinguishing Methods and Extinguishing Media	Please use water, dry sand and other proper fire extinguishing media.
Attention in Fireextinguishing	The firemen should put on antigas masks and full fire-fighting suits.

5. 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 12. Scrub the area with detergent and water; collect all contaminated wash water for proper disposal.

6. Handling and Storage

Handling	Don't handling the batteries in manner that allows terminals to short circuit. Do not open, disassemble, crush or burn battery. Operators should be trained and strictly follow the operating procedures.
Storage	Store in a cool, ventilated, dry warehouse. Keep away from fire, heat and heat. Keep strong oxidants, inflammables and corrosive products separately. Must be firmly in the inner packaging to effectively prevent short circuits and prevent movement that can cause short circuits. The storage area is equipped with the corresponding varieties and quantities of fire equipment, leakage emergency treatment equipment and appropriate containment materials. Keep out of reach of children.
Other Precautions	The battery may explode or cause burns, if disassembled, crushed or exposed to fire or high temperatures. Do not short or install with incorrect polarity.

7. 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: In case of battery venting, provide as much ventilation as possible. Avoid confined areas with venting cell cores. Respiratory Protection is not necessary under conditions of normal use. Not necessary under conditions of normal use. Protective Gloves: Not necessary under conditions of normal use. Other Protective Clothing or Equipment: Not necessary under conditions of normal use. Personal Protection is recommended for venting battery: Respiratory Protection, Protective Gloves, Protective Clothing and safety glass with side shields.

8. Physical and Chemical Properties

Physical State	Form: Solid, Color: Silver, Odour: Odorless
Change in condition	
pH, with indication of the concentration	No data is available
Melting point/freezing point	No data is available
Boiling Point, initial boiling point	No data is available
Flash Point	No data is available
Upper/lower flammability or explosive limits	No data is available
Vapor Pressure	No data is available
Vapor Density: (Air = 1)	No data is available
Density/relative density	No data is available
Solubility in Water	No data is available
n-octanol/water partition coefficient	No data is available
Auto-ignition temperature	No data is available
Decomposition temperature	No data is available
Odour threshold	No data is available
Evaporation rate	No data is available
Flammability (soil, gas)	No data is available
Viscosity	No data is available

9. Stability and Reactivity

Stability	Stable under normal temperatures and pressures.
Conditions to Avoid	Avoid misoperation, open flame, high temperature, mechanical abuse, over-charge, prevent short circuit and prevent movement that can cause short circuit.
Hazardous Decomposition Products	Carbon monoxide, carbon dioxide, lithium oxide fumes.
Incompatible material	Strong oxidizing agent, flammable and corrosive.
Possibility of Hazardous Reaction	No data is available.

10. Toxicological Information

Acute toxicity	No data is available
Irritation	In the event of exposure to internal contents, vapor fumes may be very irritating to the eyes and skin.
Sensitization	No data is available
Reproductive Toxicity	No data is available
Toxicologically Synergistic Materials	No data is available

11. Ecological Information

General note	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	No data is available
Mobility in soil	No data is available
Persistence and Degradability	No data is available

12. Disposal Considerations

Waste Treatment	Recycle or dispose of in accordance with government, state & local regulations.
Attention for Waste Treatment	Deserted batteries shouldn't be treated as ordinary trash. Shouldn't be thrown into fire or placed in high temperature. Shouldn't be dissected, pierced, crushed or treated similarly. Best disposal method is recycling.

13. Transport Information

Transport	Tested according to the requirements of the UNITED NATIONS "Manual of Tests and Criteria" Part III, subsection 38.3
UN Number	UN3480 or UN3481
UN Proper shipping name	Lithium ion batteries or Lithium ion batteries packed with equipment or Lithium ion batteries contained in equipment.
Transport hazard class(es)	Class 9 (PI 965 Section IB) or N/A(PI 966~PI 967 Section II)
Packing group	N/A
IATA DGR(66th Edition)	The product can be shipped by air in according to Section IB of PACKING INSTRUCTION 965 or Section II of PACKING INSTRUCTION 966~967 of the 2025 IATA Dangerous Goods Regulations 66th Edition.
ADR(2025 Edition)	The product is not subject to the other provision of ADR(2025 Edition) according to Special Provision 188
RID(2025 Edition)	The product is not subject to the other provision of RID(2025 Edition) according to Special Provision 188
IMO IMDG CODE (2024 Edition)	The product is not subject to the other provision of IMO IMDG CODE 2024 Edition(Amdt 42-24) according to Special Provision 188
IMDG EmS No.:	F-A, S-I
Marine pollutant	No

14. Regulatory Information

Dangerous Goods Regulations
Recommendations on the Transport of Dangerous Goods, Model Regulations
International Maritime Dangerous Goods
Technical Instructions for the Safe Transport of Dangerous Goods By Air(TI)
European Agreement concerning the International Carriage of Dangerous Goods by Road(ADR)
Regulations concerning the International Carriage of Dangerous Goods by Rail(RID)
List of Railway Dangerous Goods (TB/T 30006-2022)
Regulations Concerning Road Transportation of Dangerous Goods(JT/T 617--2018)
Classification and code of dangerous goods
Occupational Safety and Health Act(OSHA)
Toxic Substance Control Act(TSCA)
Resource Conservation and Recovery Act(RCRA)
Code of Federal Regulations(CFR) 49 CFR sections 100-185, 49 CFR -173.185
New EU Battery Regulations (EU) 2023/1542
Regulation (EC) No. 1907/2006 on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH)

15. – Additional Information

The information in this MSDS has only been compiled based on the information in the relevant materials currently in our possession and is intended only to describe the health, safety and environmental requirements of this product so that all interested parties can better understand and trust this product. However, we 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 and 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.

-- End of report --