

# SAFETY DATA SHEET

Product Name: Lithium-ion Battery

Issue Date: 20/09/2024 Version: 2

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

**PRODUCT NAME:** Lithium-ion Battery

Model/type reference:

ICR18650-2000mAh, INR18650-2000mAh, ICR18650-1000mAh, ICR18650-1200mAh, ICR18650P-1300mAh, INR18650-1300mAh, ICR18650P-1500mAh, INR18650-1500mAh, INR18650P-1500mAh, ICR18650-1800mAh, INR18650-1800mAh, ICR18650-2200mAh, INR18650-2200mAh, ICR18650-2400mAh, INR18650-2400mAh, ICR18650-2500mAh, INR18650-2500mAh, ICR18650-2600mAh, INR18650-2600mAh, ICR18500-1000mAh, ICR18500-1100mAh, ICR18500P-1200mAh, ICR18500P-1400mAh, ICR18500-1500mAh, ICR17500P-800mAh, ICR14650-1100mAh, ICR14500-400mAh, ICR14500-500mAh, ICR14500-600mAh, ICR14500P-600mAh, ICR14500-700mAh, ICR14500-750mAh, ICR14500-800mAh, IFR14500-400mAh, IFR14500-500mAh, IFR14500-600mAh, INR18350-700mAh, INR18350-800mAh, INR18350-900mAh, INR18350-1000mAh, INR18350-1200mAh, INR21700-3000mAh, INR21700-4000mAh

Nominal Voltage 3.7V

Rated Capacity / Energy: See the Model

**APPLICATIONS:** For Stock No. :

11689	7W COB INSPECT.LAMP	11758	7W.COB RECHAR.LED INSP LAMP
11759	7W.COB RECHAR.LED INSP LAMP	11761	7W.COB RECHAR.LED INSP LAMP
11762	7W.COB RECHAR.LED INSP LAMP	11763	7W.COB RECHAR.LED INSP LAMP
11764	10W.COB RECHAR.LED INSP LAMP	11765	10W.COB RECHAR.LED INSP LAMP
11766	10W.COB RECHAR.LED INSP LAMP	11767	10W.COB RECHAR.LED INSP LAMP
11768	10W.COB RECHAR.LED INSP LAMP	54374	RECHARG.3W HEAD LAMP
64499	FOLDING MINI SLIM LIGHT	64600	FOLDING SLIM LIGHT
65391	UNDER BONNET LIGHT	65688	WIRELESS MINI FLOOD LIGHT
65689	WIRELESS HEAD TORCH	65690	WIRELESS HAND TORCH
71369	NECK LIGHT	98342	7W COB SLIM INSPECTION LAMP
98346	7W COB SLIM INSPECTION LAMP	98348	7W COB SLIM INSPECTION LAMP

## SECTION 2: Hazards identification

<b>Preparation hazards and classification</b>	Not dangerous with normal use. Do not dismantle, open or shred the Lithium-ion Battery ingredients contained within or their ingredients products could be harmful.
<b>Appearance, Colour, and Odour</b>	Solid object with no odour, no colour.
<b>Primary Route(s) of Exposure</b>	These chemicals are contained in a sealed enclosure. Risk of exposure occurs only if the internal 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.
<b>Potential Health Effects:</b>	<b>ACUTE (short term):</b> see Section 8 for exposure controls. In the event that this internal cell has been ruptured, the electrolyte solution contained within the Lithium-ion Battery would be corrosive and can cause burns. <b>Inhalation:</b> Inhalation of materials from a sealed Lithium-ion Battery is not an expected route of exposure. <b>Ingestion:</b> Swallowing of materials from a sealed Lithium-ion Battery is not an expected route of exposure. <b>Skin:</b> Contact between the Lithium-ion Battery and skin will not cause any harm.

	<p>Skin contact with contents of an open internal cell can cause severe irritation or burns to the skin.</p> <p><b>Eye:</b> Contact between the Lithium-ion Battery and the eye will not cause any harm. Eye contact with contents of an open internal cell can cause severe irritation or burns to the eye.</p> <p><b>CHRONIC (long term):</b> see Section 11 for additional toxicological data.</p>
<b>Reported as carcinogen</b>	Not applicable

### SECTION 3: Composition/information on ingredients

**Chemical characterization:** Mixture

Chemical Name	CAS Number	Weight (%)
Lithium Nickel Cobalt-Manganese Oxide	346417-97-8	35
Aluminium foil	7429-90-5	4
Carbon	7440-4-0	19
Copper	7440-50-8	7
Nickel	7440-02-0	1
Polyethylene	9002-88-4	3
Iron	7439-89-6	16
Polypropylene	9003-07-0	3
Electrolyte	N/A	12

Note: CAS number is Chemical Abstract Service Registry Number.

N/A: Not applicable.

### SECTION 4: First aid measures

<b>Inhalation</b>	If contents of an opened internal cell are inhaled, remove source of contamination or move victim to fresh air. Obtain medical advice.
<b>Skin contact</b>	If skin contact with contents of an open internal cell 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.
<b>Eye contact</b>	If eye contact with contents of an open internal cell 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. Take care not to rinse contaminated water into the unaffected eye or onto face. Quickly transport victim to an emergency care facility.
<b>Ingestion</b>	If ingestion of contents of an open internal cell occurs, DO NOT INDUCE VOMITING. Have victim rinse mouth with water again. Quickly transport victim to an emergency care facility.

### SECTION 5: Firefighting measures

<b>Flammable Properties</b>	In the event that this Lithium-ion Battery has been ruptured, the electrolyte solution contain within the Internal cell would be flammable. Like any sealed container, Lithium-ion Battery may rupture when exposed to excessive heat; this could result in the release of flammable or corrosive materials.
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**Flammability hazard:** Excessive heat can cause inclusions to escape.

Combustion products and internal substances in contact with air and water products include: CO, CO<sub>2</sub>, HF, phosphorus fluoride oxide, metal oxides of lithium, other irritant and toxic gases.

Use extinguishing media suitable for the materials that are burning, Such as dry powder, CO<sub>2</sub>, soil sand and so on.

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.

## SECTION 6: Accidental release measure

<b>Personal Precautions, protective equipment, and emergency procedures</b>	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.
<b>Environmental Precautions</b>	Prevent material from contaminating soil and from entering sewers or waterways.
<b>Methods and materials for Containment</b>	Stop the leak if safe to do so. Contain the spilled liquid with dry sand or earth. Clean up spills immediately.
<b>Methods and materials for cleaning up</b>	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

<b>Handling</b>	Don't handle Lithium-ion Battery with metalwork. Do not open, disassemble, crush or burn Lithium-ion Battery. Ensure good ventilation / exhaust at the workplace. Prevent formation of dust. Information about protection against explosions and fires: Keep ignition sources away- Do not smoke.
<b>Storage</b>	If the Lithium-ion Battery is subject to storage for such a long term as more than 3 months, it is recommended to recharge the Lithium-ion Battery periodically. And recommended at 0°C~35°C, 45 to 85%RH for long period storage. Do not store Lithium-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 Lithium-ion Battery to heat or fire. Avoid storage in direct sunlight. Do not store Lithium-ion Battery together with oxidizing and acidic materials.

## SECTION 8: Exposure controls/personal protection

<b>Engineering Controls</b>	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.
<b>Personal Protective Equipment</b>	<b>Respiratory Protection:</b> Not necessary under normal conditions. <b>Skin and body Protection:</b> Not necessary under normal conditions, Wear neoprene or nitrile rubber gloves if handling an open or leaking Lithium-ion Battery. <b>Hand protection:</b> Wear neoprene or natural rubber material gloves if handling an open or leaking Lithium-ion Battery. <b>Eye Protection:</b> Not necessary under normal conditions, Wear safety glasses if handling an open or leaking Lithium-ion Battery.
<b>Other Protective Equipment</b>	Have a safety shower and eye wash fountain readily available in the immediate work area.
<b>Hygiene Measures</b>	Do not eat, drink, or smoke in work area. Maintain good housekeeping.

## SECTION 9: Physical and chemical properties

<b>Physical State</b>	Form: Solid
	Shape: Cylindrical
	Color: Green
	Odor: Odorless

<b>pH, with indication of the concentration</b>	Not applicable
<b>Melting point/freezing point</b>	No relevant information Available
<b>Boiling Point</b>	No relevant information Available
<b>Flash Point</b>	No relevant information Available
<b>Upper/lower flammability or explosive limits</b>	No relevant information Available
<b>Vapor Pressure</b>	Not applicable
<b>Vapor Density (Air = 1)</b>	Not applicable
<b>Density/relative density</b>	No relevant information Available
<b>Solubility in Water</b>	Insoluble
<b>Auto-ignition temperature</b>	130°C
<b>Decomposition temperature</b>	No relevant information Available
<b>Evaporation rate</b>	No relevant information Available
<b>Flammability (soil, gas)</b>	No relevant information Available
<b>Viscosity</b>	Not applicable

## SECTION 10: Stability and reactivity

<b>Stability</b>	The Lithium-ion Battery is stable under normal conditions.
<b>Conditions to Avoid (e.g. static discharge, shock or vibration)</b>	(Do not subject Lithium-ion Battery to mechanical shock. Vibration encountered during transportation does not cause leakage, fire or explosion. Do not disassemble, crush, short or install with incorrect polarity. Avoid mechanical or electrical abuse.
<b>Incompatible Materials</b>	No relevant information Available
<b>Hazardous Decomposition Products</b>	This material may release toxic fumes if burned or exposed to fire.
<b>Possibility of Hazardous Reaction</b>	No relevant information Available

## SECTION 11: Toxicological information

<b>Irritation</b>	Risk of irritation occurs only if the internal 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.
<b>Sensitization</b>	No relevant information Available
<b>Neurological Effects</b>	No relevant information Available
<b>Reproductive Toxicity</b>	No relevant information Available
<b>Mutagenicity (Genetic Effects)</b>	No relevant information Available

## SECTION 12: Ecological information

<b>General note:</b>	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. Dispose of batteries away from fire, rain and snow.
<b>Anticipated behavior of a chemical product in environment/possible environmental impact/ecotoxicity</b>	No relevant information Available
<b>Mobility in soil</b>	No relevant information Available
<b>Persistence and Degradability</b>	No relevant information Available
<b>Bioaccumulation potential</b>	No relevant information Available
<b>Other Adverse Effects</b>	No relevant information Available

## SECTION 13: Disposal considerations

Disposal Lithium-ion Battery cannot be directly treated as ordinary garbage.

Product disposal recommendation: Observe local, state and federal laws and regulations.

Packaging disposal recommendation: Be aware discarded Lithium-ion Battery may cause fire, tape the Lithium-ion Battery terminals to insulate them. Don't disassembly the Lithium-ion 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.

## SECTION 14: Transport information

The Lithium-ion Battery had passed the UN 38.3 test and also complies with the United Nations Recommendations on the Transport of Dangerous Goods; IATA Dangerous Goods regulations, and applicable U.S. DOT regulations for the safe transport of Lithium-ion Battery.

In the IATA Dangerous Goods Regulations PI 966: lithium-ion cell/battery packed with equipment and PI 967: lithium-ion cell/battery contained in equipment (UN Number: UN3481).

Lithium-ion Battery can be treated as "Non-dangerous goods" under the United Nations Recommendations on the Transport of Dangerous Goods, provided that packaging is strong and preventing accidental activation. UN Number: UN 3481

The mode of transportation: Air transportation, Sea transportation, Road transportation, Railway transportation.

Label for Air transportation: Lithium battery handling Label, or Hazard Class 9 label or Cargo Aircraft only.

Label for Sea transportation, Road transportation, Railway transportation: Lithium battery handling Label.

International transport of lithium batteries is regulated by the following organizations:

- The International Civil Aviation Organization (ICAO) Technical Instructions.
- The International Air Transport Association (IATA) Dangerous Goods Regulations. 63rd edition.
- The International Maritime Dangerous Goods (IMDG) Code. IMDG (40-20)

## SECTION 15: Regulatory information

《Dangerous Goods Regulations》

《International Maritime Dangerous Goods》

《United Nations Recommendations on the Transport of Dangerous Goods Regulations》

《Classification and code of Dangerous Goods》

《Occupational Safety and Health Act》 (OSHA)

《Toxic Substances Control Act》 (TSCA)

《Superfund Amendments and Reauthorization Act Title III (302/311/312/313) 》

In accordance with United Nations, country, and local laws.

## SECTION 16: Other information

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of ability 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.

\*\*\*\*\* End of MSDS \*\*\*\*\*