

# SAFETY DATA SHEET

Product Name: Rechargeable Li-ion Battery

Issue Date: 28/04/2024

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

**PRODUCT NAME:** Rechargeable Li-ion Battery 18350  
Nominal Voltage 3.7V Nominal Capacity: 800mAh Rated Energy:2.96Wh  
For Stock No. 24258 POCKET HIGH POWER FLASHLIGHT

**APPLICATIONS:**

**SUPPLIER:** Draper Tools Ltd  
Hursley Road  
Chandlers Ford  
Eastleigh  
Hampshire  
SO53 1YF  
Draper Helpline +44 (0) 2380 494344  
Opening hours 8:30-17:00 Monday – Friday.  
[www.drapertools.com](http://www.drapertools.com)

## SECTION 2: Hazards identification

### Important Physical and chemical hazards

When the battery is in extreme pressure deformation, high-temperature environment, overload, short-circuit condition, or disassemble the battery, an explosion of fire and chemical burn hazards may occur.

### Effects of the human health

#### Eyes

In normal condition, contact between the battery and eyes will not cause any harms. However, the gas Volatilize from a damaged battery may be harmful to eyes.

#### Skin

In normal condition, contact between the battery and skin will not cause any harms. Contact with a damaged battery may cause skin allergies or chemical burns.

#### Inhalation

A battery volatilizes no gas unless it was damaged. Damaged battery will volatilize little gas that may stimulate the respiratory tract or cause an anaphylaxis in serious condition.

#### Ingestion

Swallowing battery will be damaged to the respiratory tract and cause chemical burns to the stomach; in serious conditions it will cause Permanent damage.

## SECTION 3: Composition/information on ingredients

Ingredients Chemical Name	Concentration or concentration ranges (%)	CAS Number
Lithium Cobalt Oxide (LiCoO <sub>2</sub> )	35.5	12190-79-3
Aluminum Foil (Al)	9	7429-90-5
1.1-Difluoroethylene polymer	1	24937-79-9
Graphite (C)	18	7782-42-5
Copper Foil (Cu)	15	7440-50-8
Styrene-Butadiene polymer	1.5	9003-55-8
Lithium hexafluorophosphate	2.8	21324-40-3
Ethylene carbonate	5	96-49-1
Dimelene carbonate	5	616-38-6
Carbonate, methyl ethyl	5	623-53-0
Nickel	2.2	7440-02-0

## SECTION 4: First aid measures

### Eyes

If your eyes contact with a damaged battery, flush with copious amount of water for at least 15 minutes until the stinging and irritation subside, and Seek immediate medical attention.

### Skin

If your skin contact with a damaged battery, immediately take off contaminated clothing and flush your skin with copious amount of water or have a shower. Seek immediate medical attention if burning sensation continues.

### Inhalation

Remove to fresh air immediately and have a rest, If you feel dyspnea, dizziness or headache, seek immediate medical attention.

### Ingestion

If battery or open battery is ingested, do not induce vomiting or give food or drink. Seek medical attention immediately.

## **SECTION 5: Firefighting measures**

This battery can get fire easily and made a lot of smoke under the forced bending and short-circuit condition, so it should be properly used and placed in a cool environment and Avoid placing the battery package under heat, pressure and direct sunlight. In the event of fire, wear gas masks and cool the adjacent batteries and control the spread of fire with water or extinguishers, separate the fire batteries with other batteries as conditions permit, let the fire naturally extinguished, otherwise put out the fire with lots of water. In normal condition the fire is not extinguished until the reactions that between the chemicals contained in the battery are completed. In the event of a big fire, report the fire immediately and evacuate to a safe place.

## **SECTION 6: Accidental release measure**

Clean the spills and batteries, place them in a dry sealed metal container or nonflammable material container, and bring them to battery recycling companies to deal with environmental protection. Do not throw away the damaged batteries or waste batteries.

## **SECTION 7: Handling and storage**

### **Handling**

Do not assemble and disassemble a battery, battery short-circuit is not allowed too. Keep the battery away from the fire. When transporting these batteries, the battery should be careful handling to avoid the battery being squeezed or excessive vibration.

### **Storage**

The battery should be fully charged before long term storage. The battery should be stored in a cool environment.

## **SECTION 8: Exposure controls/personal protection**

### **Engineering control**

Choose the suitable ventilation equipment; provide sufficient quantity of fire extinguishers, gas mask and water; equip with metal storage containers and bathing equipments.

### **Respiratory protection**

Normally there is no need to do protection.

### **Eye protection**

Normally there is no need to do protection.

### **The body and skin protection**

Normally there is no need to do protection.

## **SECTION 9: Physical and chemical properties**

**Object appearance and shape** Cylindrical

**Odour** None

## **SECTION 10: Stability and reactivity**

### **Stability**

Stable under the regular environment.

### **Should avoid conditions**

High temperature, wet environment, mechanical shock, vibration, crush, reverse polarity used should be avoided.

### **Incompatible materials**

None

### **Hazardous decomposition products**

When the battery catches fire, it will release pungent thick smoke.

## **SECTION 11: Toxicological information**

In normal condition, contact with the battery is non-toxic.

## **SECTION 12: Ecological information**

Proper disposal of battery does not present ecological hazard.

## **SECTION 13: Disposal considerations**

It needs to be referred to the waste battery recycling companies for recycling disposal, cannot arbitrarily discarded in the environment. Specific conditions reference to the relevant national laws and regulations.

## **SECTION 14: Transport information**

This report applies to by sea, by air and by land;

This battery sample is Rechargeable Li-ion Battery and This battery type is proved to meet the Requirements tests in the UN Manual of Tests and Criteria, Part III, subsection 38.3.

Rechargeable Li-ion Battery Can be transport by air according to the International Air transport Association (IATA) Dangerous Goods Regulations relevant regulations (65th) for section 3.9.2.6.1(e).

Rechargeable Li-ion Battery can be transport by air according to the Packing Instructions PI965 IB、PI966 II and PI 967 II Section of IATA.

Rechargeable Li-ion Battery must be 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.

Rechargeable Li-ion Battery offered for transport must be packed in inner packaging's that completely enclose the cell or battery; to provide protection from damage or compression to the batteries, the inner packaging's must be placed in a strong rigid outer packaging.

UN No.	Proper shipping name/Description (technical name)	Class or Div. (Sub Hazard)	Packing Group	Packing Instruction	Remark
UN3480	Lithium ion batteries	--	--	Section IB of PI 965	Lithium-ion cells and batteries must be transported in a state of charge (SoC) not exceeding 30% of their rated capacity;
UN3481	Lithium ion batteries contained in equipment or Lithium ion batteries packed with equipment	--	--	Section II of PI 967 or Section II of PI 966	--

Can be transport by sea according to the special provision 188 of IMO International Maritime Dangerous Goods Code relevant regulations.

According to 2.9.4.7 of IMO IMDG Code (2022 Edition), Manufacturers and subsequent distributors of batteries manufactured shall make available the test summary as specified in the manual of tests and criteria, Part III, sub-section 38.3, paragraph 38.3.5;

According to 2.2.9.1.7(g) of ADR-2023 (2023 Edition), Manufacturers and subsequent distributors of batteries manufactured shall make available the test summary as specified in the manual of tests and criteria, Part III, sub-section 38.3, paragraph 38.3.5;

## **SECTION 15: Regulatory information**

Dangerous Goods Regulations

IMO International Maritime Dangerous Goods Code relevant regulations.

Refer to U. N., national, local regulations.

## **SECTION 16: Other information**

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