

SAFETY DATA SHEET

Product Name: Li-ion Polymer Battery

Date of Issue: 23/09/2020

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

PRODUCT NAME: Li-ion Polymer Battery
Ratings: 3.7V 380mAh 1.4Wh
APPLICATIONS: For Stock No.41740 RECHARGEABLE LED BICYCLE REAR LIGHT
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

SECTION 2: Hazards identification

Explosive Risk This article does not belong to the explosion dangerous goods.
Flammable Risk This article does not belong to the flammable material.
Oxidation Risk This article does not belong to the oxidation of dangerous goods.
Toxic Risk This article does not belong to the toxic dangerous goods.
Radioactive Risk This article does not belong to the radiation of dangerous goods.
Mordant Risk This article does not belong to the corrosion of dangerous goods.
Other Risk This article is Li-ion Battery. Watt hour rate 1.4Wh, which belong to the lithium ion batteries.

SECTION 3: Composition/information on ingredients

Chemical Name	Chemical Formula	CAS No.	Concentration (in % by weight)
Lithium Cobaltate	LiCoO ₂	12190-79-3	25-40
Graphite	C	7782-42-5	10-20
Lithium hexafluorophosphate	LiPF ₆	21324-40-3	10-20
Aluminium	Al	7429-90-5	10-40
PVDF	(CH ₂ -CF ₂) _N	24937-79-9	<=1
Copper	CU	7440-50-8	5-15

SECTION 4: First aid measures

Eye: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin: Remove contaminated clothes and rinse skin with plenty of water or shower for 15 minutes. Get medical aid.

Inhalation: Remove from exposure and move to fresh air immediately. Use oxygen if available.

Ingestion: Give at least 2 glasses of milk or water. Induce vomiting unless patient is unconscious. Call a physician.

SECTION 5: Firefighting measures

Flash Point: N/A.

Auto-Ignition Temperature: N/A.

Extinguishing Media: Water, CO₂.

Special Fire-Fighting Procedures: Self-contained breathing apparatus.

Unusual Fire and Explosion Hazards: Cell may vent when subjected to excessive heat-exposing battery contents.

Hazardous Combustion Products: Carbon monoxide, carbon dioxide, lithium oxide fumes.

SECTION 6: Accidental release measure

Steps to be taken in case Material is Released or Spilled If the battery material is released, remove personnel from area until fumes dissipate. Provide maximum ventilation to clear out hazardous gases. Wipe it up with a cloth and dispose of it in a plastic bag and put into a steel can. The preferred response is to leave the area and allow the battery to cool and vapours to dissipate. Provide maximum ventilation. Avoid skin and eye contact or inhalation of vapours. Remove spilled liquid with absorbent and incinerate.

SECTION 7: Handling and storage

The battery should not be opened, destroyed or incinerate, since they may leak or rupture and release to the environment the ingredients that they contain in the hermetically sealed container. Do not short circuit terminals, or over charge the battery, forced over-discharge, throw to fire. Do not crush or puncture the battery or immerse in liquids.

Precautions to be taken in handling and storing Avoid mechanical or electrical abuse. Storage preferably in cool, dry and ventilated area, which is subject to little temperature change. Storage at high temperatures should be avoided. Do not place the battery near heating equipment, nor expose to direct sunlight for long periods.

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.

SECTION 8: Exposure controls/personal protection

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.

Ventilation 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.

SECTION 9: Physical and chemical properties

Appearance:	Prismatic
Odour:	If leaking, smells of medical ether
pH:	Not applicable as supplied.
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.

SECTION 10: Stability and reactivity

Stability: Product is stable under conditions described in Section 7.

Conditions to Avoid: Heat above 70°C or incinerate. Deform. Mutilate. Crush. Disassemble. Overcharge. Short circuit. Expose over a long period to humid conditions.

Materials to avoid: Oxidising agents, alkalis, water.

Hazardous Decomposition Products: Toxic Fumes and may form peroxides.

Hazardous Polymerization: N/A.

If leaked, forbidden to contact with strong oxidizers, mineral acids, strong alkaline, halogenated hydrocarbons.

SECTION 11: Toxicological information

Signs & symptoms: None, unless battery ruptures.

In the event of exposure to internal contents, vapour fumes may be very irritating to the eyes and skin.

Inhalation: Lung irritant.

Skin contact: Skin irritant.

Eye contact: Eye irritant

Ingestion: Poisoning if swallowed.

Medical conditions generally aggravated by exposure: In the event of exposure to internal contents, moderate to severe irritation, burning and dryness of the skin may occur, Target organs nerves, liver and kidneys.

SECTION 12: Ecological information

Mammalian effects: None known at present.

Eco-toxicity: None known at present.

Bioaccumulation potential: Slowly Bio-degradable

Environmental fate: None known environmental hazards at present.

SECTION 13: Disposal considerations

Do not incinerate, or subject cells to temperature in excess of 70°C, Such abuse can result in loss of seal leakage, and/or cell explosion. Dispose of in accordance with appropriate local regulations.

SECTION 14: Transport information

Label for conveyance: Lithium Battery Label, or Lithium Battery Class 9 Hazard Label, or Cargo Aircraft Only Label.

UN Number: ~~UN3480~~ or UN3481

Packaging Group: Not Applicable

Marine pollutant: No

Proper Shipping name: Lithium Ion Batteries (Including Lithium Polymer Batteries), Lithium Ion Battery Packed With Equipment, Lithium Ion Battery Contained In Equipment.

Transport information: Lithium ion battery is of a type proved to meet the Requirements of each test in the UN MANUAL OF TESTS AND CRITERIA, Part III, sub-section 38.3 (Report No.: CESUN200923010)

The lithium ion battery with a watt-hour rating not exceeding 100Wh or the cell with the watt-hour rating is not exceeding 20Wh, the lithium ion battery according to Section II/Section IB of PACKING INSTRUCTION 965, OR Section II of PACKING INSTRUCTION 966-967 of the IATA Dangerous Goods Regulations 61st Edition may be transported.

The goods shall be complied with the requirements of special provision 188 of IMDG CODE (Amdt. 39-18) 2018. The goods to be transport as Non-restricted Good.

The packing 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.

SECTION 15: Regulatory information

Law 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》

《Classification and code of dangerous goods》

《Occupational Safety and Health Act》 (OSHA)

《Toxic Substance Control Act》 (TSCA)

《Consumer Product Safety Act》 (CPSA)

《Federal Environmental Pollution Control Act》 (FEPCA)

《The Oil Pollution Act》 (OPA)

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

《Resource Conservation and Recovery Act》 (RCRA)

《Safety Drinking Water Act》 (CWA)

《California Proposition 65》

《Code of Federal Regulations》 (CFR)

In accordance with all Federal, State and local laws

SECTION 16: Other information

The commissioner provides the composition information of batteries and promises its integrity and accuracy. Users should read this file carefully and use the batteries in correct method. ----- doesn't assume responsibility for any damage or loss because of misuse of batteries.

--- End of Report ---