

# SAFETY DATA SHEET

Product Name: Lithium ion Cell

Issue Date:20/09/2024 Version:2

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

### PRODUCT NAME:

Lithium ion Cell

INR18650P 1300mAh: 3.7V 1300mAh 4.81Wh

INR18650P 1500mAh: 3.7V 1500mAh 5.55Wh

INR18650H 2000mAh: 3.7V 2000mAh 7.40Wh

INR18650H 2200mAh: 3.7V 2200mAh 8.14Wh

### APPLICATIONS:

For Stock No. 89437 Draper Storm Force® 20V Li-ion Battery, 2.0Ah

### 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

### 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 respectively 4.81Wh, 5.55Wh, 7.4Wh, 8.14Wh.

## SECTION 3: Composition/information on ingredients

Chemical Name	Concentration or concentration ranges (%)	CAS Number
Polypropylene;	0.3	9003-07-0
Nickel (Ni)	15.5	7440-02-0
Iron		7439-89-6
Aluminium (Al)	3.88	7429-90-5
Nickel (Ni)		7440-02-0
Iron		7439-89-6
Polypropylene;		9003-07-0
Lithium hexafluorophosphate	14.3	21324-40-3
Ethyl methyl carbonate		623-53-0
Dimethyl carbonate		616-38-6
LiMn <sub>1-x-y</sub> Ni <sub>x</sub> Co <sub>y</sub> O <sub>2</sub>	28.27	182442-95-1
Graphite	17.8	7782-42-5
Carbon Black	1.2	1333-86-4
Polyvinylidene Fluoride (PVDF)	1.75	24937-79-9
Copper (Cu)	9.71	7440--50-8
Aluminium (Al)	6.22	7429-90-5
Nickel (Ni)	0.97	7440-02-0
Diaphragm	0.1	--

## 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, CO<sub>2</sub>.

**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 vapors to dissipate. Provide maximum ventilation. Avoid skin and eye contact or inhalation of vapors. 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.

**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:** Cylindrical shape

**Ref. No.:** N/A

**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 alkalies, 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.

**UN Number:** UN3840 or UN3481

**Packing Group:** N/A

**EmS No:** F-A, S-I

**Marine pollutant:** No

**Proper Shipping name:** 1) Lithium ion batteries; 2) Lithium ion batteries packed with equipment; 3) Lithium ion batteries contained in equipment. (including Lithium ion polymer batteries)

**Hazard Classification:** The goods shall be complied with the requirements of Section II (or Section IB) of Packing Instructions 965-967 of 58th DGR Manual of IATA (2017 edition), including the passing of the UN38.3 test. And also complies with the Special Provision 188 of IMDG CODE (Amdt.37-14) 2014 Edition.

## **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 TitleIII (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**

This information comes from reliable sources, but no warranty is made to be completeness and accuracy of information contained. We don't assume responsibility for an damage or loss because of misuse of batteries. Users should grasp the correct use method and be responsible for the use of batteries.

--- End of Report ---