

SAFETY DATA SHEET

1: Identification of the Product and Supplier

1.1 Product Name

Rechargeable Li-ion cell

1.2 Type/Mode

INR18650 2000mAh

1.3 Rating

3.7V, 2000mAh, 7.4Wh

1.4 Supplier's Details

Henan Haihong Technology Co., Ltd.
Haihong Road, Gaozhuang Village
Pushan Town, Wolong District, Nayang City
He'nan, China

1.5 Inspection According to

EEC Directive 93/112/EC
UN "Recommendations on the TRANSPORT OF DANGEROUS GOODS"

1.6 Emergency Telephone

+86-0377-68091999



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2: Composition/Information on Ingredients

Chemical Name	Concentration	CAS Number
$\text{LiMn}_{1-x-y}\text{Ni}_x\text{Co}_y\text{O}_2$	37.12	--
Polyvinylidene Fluoride (PVDF)	1.39	24937-79-9
Aluminum (Al)	9.73	7429-90-5
Graphite	17.68	7782-42-5
Styrene-Butadiene Rubber (SBR)	0.36	61789-96-6
Carboxymethylcellulose	0.35	9000-11-7
Copper (Cu)	9.09	7440-50-8
Nickel (Ni)	1.36	7440-02-0
Lithium Hexafluorophosphate	17.66	21324-40-3
Polyethylene	3.06	9002-88-4
Nylon	0.8	24937-16-4
Polypropylene	1.4	9003-07-0

3: 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 the Rechargeable Li-ion cell, Watt hour rate 7.4Wh

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4: First Aid Measures

4.1 Description of Necessary First Aid Measures

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

5: Fire-Fighting Measures

5.1 Flash Point

N/A

5.2 Auto-Ignition Temperature

N/A

5.3 Extinguishing Media

Water, CO2

5.4 Special Fire-Fighting Procedures

Self-contained breathing apparatus

5.5 Unusual Fire and Explosion Hazards

Cell may vent when subjected to excessive heat-exposing battery contents

5.6 Hazardous Combustion Products

Carbon monoxide, carbon dioxide, lithium oxide fumes

6: Accidental Release Measures

6.1 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 or vapors. Remove spilled liquid with absorbent and incinerate.

6.2 Waste Disposal Method

It is recommended to discharge the battery to the end, to use up the metal lithium inside the battery, and to bury the discharged battery in soil.

7: Handling and Storage

The battery should not be opened, destroyed or incinerated, 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, over charge the battery, forced over-discharge, or throw to fire. Do not crush or puncture the battery, or immerse in liquids.

7.1 Precautions to be Taken in Handling and Storing

Avoid mechanical or electrical abuse. Store preferably in a 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.

7.2 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.

8: Exposure Controls/Personal Protection

8.1 Respiratory Protection

In case of battery venting, provide as much ventilation as possible. Avoid confined areas with venting cell cores. Respiratory protection is not necessarily under conditions of normal use.

8.2 Ventilation

Not necessary under conditions of normal use.

8.3 Other Protective Clothing or Equipment

Not necessary under conditions of normal use.

8.4 Personal Protection is Recommended for Venting Battery

Respiratory protection, protective gloves, protective clothing and safety glass with side shields.

9: Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Appearance:	Cylindrical shape
Ref. No.:	4788055526-1
Odor:	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

10: Stability and Reactivity

10.1 Stability

Product is stable under conditions described in Section 7

10.2 Conditions to Avoid

Heat above 70°C or incinerate. Deform, mutilate, crush, disassemble, overcharge, short circuit, expose over a long period to humid conditions

10.3 Materials to Avoid

Oxidizing agents, alkalis, water

10.4 Hazardous Decomposition Products

Toxic fumes and may form peroxides

10.5 Hazardous Polymerization N/A

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

11: Toxicological Information

11.1 Signs and Symptoms: None, unless battery ruptures

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

Inhalation:	Lung irritant
Eye Contact:	Eye irritant
Skin Contact:	Skin irritant
Ingestion:	Posioning 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 which may target organs, nerves, liver and kidneys.

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12: Ecological Information

12.1 Mammalian Effects

None known at present

12.2 Eco-toxicity

None known at present

12.3 Bioaccumulation Potential

Slowly bio-degradable

12.4 Environmental Fate

None known at present

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.

14: Transport Information

14.1 DOT

UN-Number:	UN3480
Packing Group:	N/A
EmS No.:	F-A, S-I
Marine Pollutant:	No
Proper Shipping Name:	Lithium ion batteries (Including Lithium ion polymer batteries)
Hazard Class:	The goods shall be complied with the requirements of Section IB of Packing Instructions 965 of 58th DGR Manual of IATA (2017 edition), including the passing of the UN38.3 test. It also complies with the Special Provision 188 of IDG CODE (Amdt. 37-14) 2014 edition.

15: Regulation Information

15.1 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)
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

In accordance with all federal, state and local laws.

16: Other Information

This information is not effective to all the batteries manufactured by Henan Haihong Technology Co., Ltd. This information comes from reliable sources, but no warranty is made to the completeness and accuracy of information contained. **Dongguan UTL Electronic Technology Co., Ltd.** does not assume responsibility for any damage or loss because of misuse of batteries. User's should grasp the correct use method and be responsible for the use of batteries.