

Safety Data Sheets

Commissioned by:	Hunan Xinrui New Energy Technology Co., Ltd
Commissioner address:	Building 2, Phase 1 of New Energy. Fuyuan Industrial Park, Wenmiao Street, Ningyuan County, Yongzhou City, Hunan Province, China
Supplier:	Hunan Xinrui New Energy Technology Co., Ltd
Supplier address:	Building 2, Phase 1 of New Energy. Fuyuan Industrial Park, Wenmiao Street, Ningyuan County, Yongzhou City, Hunan Province, China
Product Name:	Li-ion Polymer Battery
Model:	351027
Rating:	3.7V, 80mAh, 0.296Wh
Inspection according to:	Globally Harmonized System of Classification and Labelling of Chemicals (GHS, Rev.10)
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Report No.:	YL250938004M01

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Approved by: Noah shaw

Date: 2025.09.16



SECTION 1: IDENTIFICATION

(a) Product identifier

Product name: Li-ion Polymer Battery

Product Model: 351027

(b) Other means of identification

Rating: 3.7V, 80mAh, 0.296Wh

(c) Relevant identified use of Product and uses advised against

Recommended Use: AirLock

Uses advised against: Don't disassemble, impact, crush, put into fire or water, don't use above 60 °C!

(d) Details of the supplier of the product

Name: Hunan Xinrui New Energy Technology Co., Ltd

Address: Building 2, Phase 1 of New Energy. Fuyuan Industrial Park, Wenmiao Street, Ningyuan
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Telephone: +86-13430677560

E-mail address: yangxl@tjnewenergy.com

(e) Emergency phone number

Company Emergency Phone Number: +86-13430677560

SECTION 2: HAZARDS IDENTIFICATION

(a) Classification of the substance or mixture

Classification according to OSHA Hazard Communication Standard (29 CFR 1910.1200)

GHS07: H302, H317

GHS08 Health hazard: H334, H341, H350, H360, H372

GHS05 Corrosion: H314, H38

(b) Information concerning particular hazards for human and environment

The product has to be labeled due to the calculation procedure of OSHA Hazard Communication Standard (29CFR 1910.1200).

(c) Classification system

The classification is according to the latest edition of OSHA Hazard Communication Standard (29 CFR 1910.1200), and extended by company and literature data.

(d) Label elements

Labelling according to OSHA Hazard Communication Standard (29 CFR 1910.1200)

(e) Hazard pictograms



GHS07

GHS08

GHS05

Signal word Danger

(f) Hazard statements

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H341 Suspected of causing genetic defects.

H350 May cause cancer.

H360 May damage fertility or the unborn child.

H372 Causes damage to organs through prolonged or repeated exposure.

(g) Hazards not otherwise classified

No further relevant information available.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

(a) Mixtures information

Chemical name	CAS No.	Concentration%
Lithium Cobalt Oxide (CoLiO ₂)	12190-79-3	42.4
1,1-Difluoroethylene polymer	24937-79-9	0.34
Aluminum	7429-90-5	3.60
Graphite	7782-42-5	27.20
Rubber, butadiene styrene	61789-96-6	0.24
Cellulose, carboxymethyl ether	9000-11-7	0.40
Copper	7440-50-8	6.30
Nickel	7440-02-0	0.22
Phosphate(1-), hexafluoro-, lithium	21324-40-3	17.20
Polyethylene	9002-88-4	1.00
Poly[imino(1-oxo-1,12-dodecanediyl)], (nylon 12 chips)	24937-16-4	0.52
Polypropylene	9003-07-0	0.58

SECTION 4: FIRST-AID MEASURES

(a) First aid measures

Eye Contact: Rinse thoroughly with plenty of water, also under the eyelids. If symptoms persist, call a physician.

Skin Contact: Remove contaminated clothing and shoes. Wash skin with soap and water. In the case of skin irritation or allergic reactions see a physician.

Inhalation: Move to fresh air. If symptoms persist, call a physician.

Ingestion: Do NOT induce vomiting. Drink plenty of water. If symptoms persist, call a physician.

Swallowing: Do not induce vomiting. Get medical attention.

(b) Most Important Symptoms/Effects

Contact with internal components may cause allergic skin sensitization (rash) and irritate eyes, skin, nose, throat, respiratory system. Cobalt and Cobalt compounds are considered to be possible human carcinogen(s).

(c) Indication of any immediate medical attention and special treatment needed

Inform physician. Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

(a) Extinguishing media

CO₂, dry chemical powder, wet sand, plenty of water (for cooling).

Unsuitable Extinguishing Media: No information available.

(b) Special hazards arising from the chemical

Under fire conditions, batteries may burst and release hazardous decomposition products when exposed to a fire situation. This could result in the release of flammable or corrosive materials. Hazardous combustion products: CO, CO₂, Metal oxides, Irritating fumes

(c) Special protective equipment and precautions for fire-fighters

Firefighters must wear fire resistant protective equipment and appropriate breathing apparatus. The staff must equip with filtermask (full mask) or isolated breathing apparatus. The staff must wear the clothes which can defense the fire and the toxic gas. Put out the fire in the upwind direction. Remove the container to the open space as soon as possible. Spray water on the containers in the fireplace to keep them cool until finish extinguishment.

SECTION 6: Accidental release measures

(a) Personal precautions, protective equipment and emergency procedures

If the battery material is released, remove personnel from area until fumes dissipate. Provide maximum ventilation to clear out hazardous gases. The preferred response is to leave the area, dispose the case after the batteries cool and vapors dissipate. Provide maximum ventilation. Avoid skin and eye contact or inhalation of vapors.

(b) Environmental Precautions

Prevent material from contaminating soil and from entering sewers or waterways.

(c) Methods and materials for containment and cleaning up

If the battery casing is dismantled, small amounts of electrolyte may leak. Collect all released material in a plastic lined container. Dispose off according to the local law and rules. Avoid leached substances to get into the earth, canalization or waters.

SECTION 7: Handling and storage

(a) Precautions for safe handling

Always follow the warning information on the batteries and in the manuals of devices. Only use the recommended battery types. Keep batteries away from children. For devices to be used by children, the battery casing should be protected against unauthorized access. Unpacked batteries shall not lie about in bulk. In case of

battery change always replace all batteries by new ones of identical type and brand. Do not swallow batteries. Do not throw batteries into water. Do not throw batteries into fire. Avoid deep discharge. Do not short-circuit batteries

(b) Conditions for safe storage, including any incompatibilities

If the battery is subject to storage for such a long term as more than 3 months, it is recommended to recharge the battery periodically. And recommended at -5°C~45°C for 1 month storage, at -5°C~35°C for 3 months storage. Do not storage the 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.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

(a) Engineering Controls

Use ventilation equipment if available. Safety shower and eye bath.

(b) Personal Protective Equipment

Respiratory System: Not necessary under conditions of normal use.

Eyes: Not necessary under conditions of normal use.

Clothing: Wear appropriate protective clothing.

Hand: Safety gloves.

(c) Other Protect

No smoking, drinking and eating at working site. Wash thoroughly after handling.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

PhysicalState	Shape: Approximate Cuboid
	Color: Silver
	Odour: Odourless
	Odor Threshold: No information available
Change in condition:	
pH, with indication of the concentration	Not determined.
Melting point/freezing point	Not determined.
Initial boiling point and Boiling range	Not determined.
Flash Point	Not determined.
Flammability (solid, gas)	Not determined.
Upper/lower flammability or explosive limits	Not determined.
Auto-ignition temperature	Product is not self-igniting.
Decomposition temperature	Not determined.
Other Information	No further relevant information available.

SECTION 10: STABILITY AND REACTIVITY

(a) Reactivity

Stable under recommended storage and handling conditions.

(b) Chemical stability

Stable under normal conditions.

(c) Possibility of hazardous reactions

When heated above 150°C the risk of rupture occurs. Due to special safety construction, rupture implies controlled release of pressure without ignition.

(d) Conditions to avoid

Do not subject the battery to mechanical shock. Keep away from open flames, high temperature.

(e) Incompatible materials

Strong oxidizer, strong acid.

(f) Hazardous decomposition products

Under fire conditions, the electrode materials can form carcinogenic nickel and cobalt oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

(a) Information on toxicological characteristics

Acute toxicity: No data available.

Skin corrosion/irritation: Strong caustic effect on skin and mucous membranes.

Serious eye damage/irritation: Cause serious eye irritation.

Respiratory or skin sensitization: No sensitizing effects known.

Specific target organ system toxicity: No information available.

Note: The internal battery materials may cause irritation to eyes and skin.

SECTION 12: ECOLOGICAL INFORMATION

(a) Toxicity

No further relevant information available.

(b) Persistence and degradability

No further relevant information available.

(c) Bioaccumulative potential

No further relevant information available.

(d) Mobility in soil

No further relevant information available.

(e) Other adverse effects

No information available.

SECTION 13: DISPOSAL CONSIDERATIONS

(a) Waste treatment methods

Recommendation: Lithium batteries are best disposed of as a non-hazardous waste when fully or mostly discharged. Contact a licensed professional waste disposal service to dispose of large quantities materials.

(b) Other disposal recommendations

Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

According to Section II/Section IB of PACKING INSTRUCTION 965, or Section II of PACKING INSTRUCTION 966~967 of the 2025 IATA Dangerous Goods regulations 66th Edition and the special provision 188 of IMDG (inc Amdt 42-24). The batteries should be securely packed and protected against short-circuits. Examine whether the package of the containers are integrate and tighten closed before transport. Take in a cargo of them without falling, dropping, and breakage. Prevent collapse of cargo piles. Don't put the goods together with oxidizer and chief food chemicals. The transport vehicle and ship must be cleaned and sterilized otherwise it is not allowed to assemble articles. During transport, the vehicle should prevent exposure, rain and high temperature. For stopovers, the vehicle should be away from fire and heat sources. When transported by sea, the assemble place should keep away from bedroom and kitchen, and isolated from the engine room, power and fire source. Under the condition of Road Transportation, the driver should drive in accordance with regulated route, don't stop over in the residential area and congested area. Forbid to use wooden, cement for bulk transport.

UN number	3480 or 3481
UN Proper shipping name	Lithium ion batteries ("lithium ion batteries contained in equipment" or "lithium ion batteries packed with equipment")
Transport Hazard class(es)	Class 9
EMS Number	F-A, S-I
Marine pollutant	No
Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code)	No information available

SECTION 15: REGULATORY INFORMATION

(a) International Regulation

Globally Harmonized System of Classification and Labeling of Chemicals
 Recommendations on the Transport of Dangerous Goods Model Regulations
 IATA Dangerous Goods Regulations (DGR)
 International Maritime Dangerous Goods (IMDG CODE)

(b) EU Regulation

EU regulation (EC) 1272/2008 on "Classification, Labeling and Packaging of Substances and Mixtures" (CLP)

Registration, Evaluation and Authorization of Chemicals (REACH)

European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR)

(c) US Regulation

American National Standard for Hazardous Workplace Chemicals – Hazard Evaluation and Safety Data Sheet and Precautionary Labeling Preparation

SECTION 16: OTHER INFORMATION

The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in anyway connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

*******End of the SDS*******