



Material Safety Data Sheet (MSDS)

Product Name: Polymer li-ion battery

Model Number: 802938 3.7V 1100mAh 4.07Wh

Applicant: Huizhou HeYing Electronics Technology Co., LTD

Address: Part of the fourth floor of the factory building of No.41, Changxi Second Road, Zhongkai High-tech Zone, Huizhou City

KeySense Testing & Certification International Co., Ltd.

1-3F, Lab Building, No.29 District, ZhongKai Hi-Tech Industrial Development Park,
Huizhou, Guangdong, China



**Section 1. PRODUCT AND COMPANY IDENTIFICATION****Product Details**

Product Name: Polymer li-ion battery
Product Use: Used in portable applications
Model: 802938 3.7V 1100mAh 4.07Wh
Supplier Name: Huizhou HeYing Electronics Technology Co., LTD
Supplier Address: Part of the fourth floor of the factory building of No.41,
Changxi Second Road, Zhongkai High-tech Zone, Huizhou
City
Supplier Phone Number: +86-18819679588
Emergency telephone number: +86-18819679588

Section 2. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient Name	CAS No.	Percent of Content (%)
LMNO	12031-75-3	21.73%
Lithium cobaltate	12190-79-3	21.73%
Polyvinylidene Fluoride(PVDF)	24937-79-9	0.53%
Aluminum(Al)	7429-90-5	4.45%
Graphite	7782-42-5	23.28%
Styrene-Butadiene Rubber (SBR)	9003-55-8	0.49%
Carboxymethylcellulose sodium	9004-32-4	0.34%
Copper (Cu)	7440-50-8	6.55%
Nickel (Ni)	7440-02-0	0.23%
Lithium Hexafluorophosphate	21324-40-3	16.0%
Polyethylene	9002-88-4	2.77%
Nylon	24937-16-4	0.8%
Polypropylene	9003-07-0	1.1%

Remark:

CAS:Chemical Abstracts Service(Division of the American Chemical Society)

"--":No Data

Section 3. HAZARDS IDENTIFICATION

Classification of Danger: (see section 14)

Invasion Route: eyes, skin contact, ingestion

Health Hazard: the lithium ion batteries are not hazardous when used according to the



instructions of manufacturer under normal conditions. In case of abuse, there's risk of rupture, fire, heat, leakage of internal components, with could cause casualty loss. Abuses include but not limited to the following cases: charged for long time, short circuited, put into fire, whacked with hard object, punctured with acute object, crushed, and broken.

Environmental Hazard: Not reported

The Danger of Burning and Exploding: May occur fire or explosion in high temperature or short circuit.

Section 4. FIRST-AID MEASURES

Eyes:	Irrigate thoroughly with water for at least 15 minutes. Obtain medical attention.
Skin:	Wash off skin thoroughly with water. Remove contaminated clothing and wash before reuse. In severe cases obtain medical attention.
Inhalation:	Remove from exposure, rest and keep warm. In severe cases obtain medical attention.
Ingestion:	Wash out mouth thoroughly with water and give plenty of water to drink. Obtain medical attention.
Further treatment:	All cases of eye contamination, persistent skin irritation and casualties who have swallowed this substance or been affected by breathing its vapours should be seen by a Doctor.

Section 5. FIRE-FIGHTING MEASURES

Characteristics of Hazard:	Toxic fumes; gases or vapors may evolve on burning.
Hazardous Combustion Products:	When burned, hazardous products of combustion including fume of carbon monoxide and carbon dioxide can occur.
Extinguishing Media:	Water, carbon dioxide, dry chemical or foam.
Basic Fire Fighting Procedures:	Wear NIOSH/MSHA approved positive pressure self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Section 6. ACCIDENTAL RELEASE MEASURES

Accidental:	If the battery breakage and electrolyte leakage, evacuate personnel until the smoke cleared. Wipe with a cloth and placed in steel drums into the bag inside. If the battery is hot, away from the scene firstly, cool the battery, so that the steam dissipated. Adequate ventilation. Avoid skin or eye contact steam.
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Waste treatment:

The battery Should discharge completely, the waste batteries will be turned over in the relevant sector, and all waste must refer to the United Nations, national, local regulations for disposal. Reference to national or federal Environmental Protection Agency EPA.

Section 7. HANDLING AND STORAGE

Prohibit mechanical or electrical damage battery.

Stored in a dry, cool and ventilated environment, to avoid temperature changes or high temperature.

Keep away from heat, avoid prolonged sun exposure.

Against short circuit, overcharge, forced discharge, or in a fire.

Battery disassembly, crush, fire or high temperatures can cause fire or explosion, prohibit short-circuit or error operation.

Section 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Respiratory protection: If the battery leaks, the need for full ventilation.

Hand Protection: Under normal use, do not.

Personal Protection: Under normal use, do not.

Other protection: Under normal use, do not.

If the battery leaks, must wear the following protection products.

	Respiratory protection	In all fire situations, use self-contained breathing apparatus.
	Hand protection	In the event of leakage wear gloves.
	Eye protection	Safety glasses are recommended during handling.
	Other	In the event of leakage, wear chemical apron.

**Section 9. PHYSICAL AND CHEMICAL PROPERTIES**

Nominal Voltage:	3.7V
Capacity:	1100mAh
Watt-hour:	4.07Wh
Appearance characters:	Orange

Section 10. STABILITY AND REACTIVITY

Product is stable under conditions described in Section 7.

Hazardous reactions may occur under some specific conditions.

Conditions to avoid: When a battery cell is exposed to an external short-circuit, crushes, modification, high temperature above 100 degree C, it will be the cause of heat generation and ignition. Avoid to be exposed to direct sunlight and high humidity.

Materials to avoid: Conductive materials, water, seawater, strong oxidizers and strong acids.

Hazardous decomposition products: Acrid or harmful gas is emitted during fire.

Section 11. TOXICOLOGICAL INFORMATION

Primary irritant effect: None, unless battery ruptures. In the event of exposure to internal contents, corrosive fumes will be very irritating to skin, eyes and mucous membranes. Overexposure can cause symptoms of non-fibrotic lung injury and membrane irritation.

Inhalation: Lung irritant.

Skin contact: Skin irritant

Eye contact: Eye irritant.

Ingestion: Tissue damage to throat and gastro-respiratory tract if swallowed.

Medical conditions generally aggravated by exposure: In the event of exposure to internal contents, eczema, skin allergies, lung injuries, asthma and other respiratory disorders may occur.

Section 12. ECOLOGICAL INFORMATION

Environmental Impact: Proper use and disposal of the battery will not harm the environment. Dispose of the battery, away from water, rain and snow.

Section 13. DISPOSAL CONSIDERATIONS



Do not incinerate, or subject cells to temperatures in excess of 100°C. Such abuse can result in loss of seal, leakage, and/or cell explosion.

Waste disposal must be in accordance with the applicable regulations. Disposal of the lithium ion battery cells should be performed by permitted, professional disposal page: firms knowledgeable in state or local requirements of hazardous waste treatment and hazardous waste transportation. Incineration should never be performed by battery but users, eventually by trained professional in authorized facility with proper gas and fume treatment.

Deserted batteries could not be treated as ordinary trash. could not be thrown into fire or placed in high temperature. could not be dissected, pierced, crushed or treated similarly. Best way is recycling.

Section 14. TRANSPORT INFORMATION

UN NO.	UN3480, UN3481	
Proper Shipping Name	UN3480 PI965 Lithium ion Batteries UN3481 PI966 Lithium ion Batteries packed with equipment UN3481 PI967 Lithium ion Batteries Contained In Equipment	
Labels for Package	Class 9	
ICAO/IATA	Can be shipped by air in accordance with international Civil Aviation Organization (ICAO), TI or International Air Transport Association (IATA) DGR 65 th Packing Instructions Section IB of 965 or Section II of 966 /967 appropriately .	DGR 65 th
IMDG CODE	International Maritime Dangerous Goods Code under Special Provision188	(Amdt 41-22)
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road under Special Provision 188	ADR 2023
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail under Special Provision 188	RID 2023

May be shipped without being declared as Class 9 dangerous goods, when meet to the requirements above.

Section15. REGULATORY INFORMATION

《Dangerous Goods Regulation》
《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》
OSHA Hazard Communication Standard Status
Toxic Substances Control Act (TSCA) Status
SARA Title III
RCRA
In accordance with all Federal, State and Local laws

Section 16. OTHER INFORMATION

The above information is based on the data of which we are aware and is believed to be correct as of the data hereof. Since this information may be applied under conditions beyond our control and with which may be unfamiliar and since data made available subsequent to the data hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

Photo 1 of sample

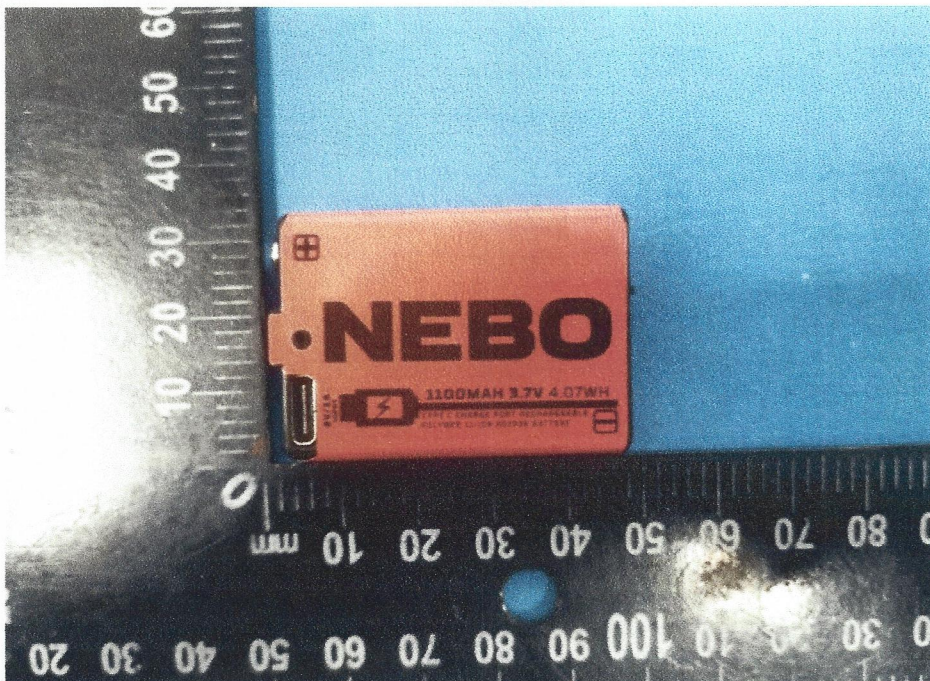
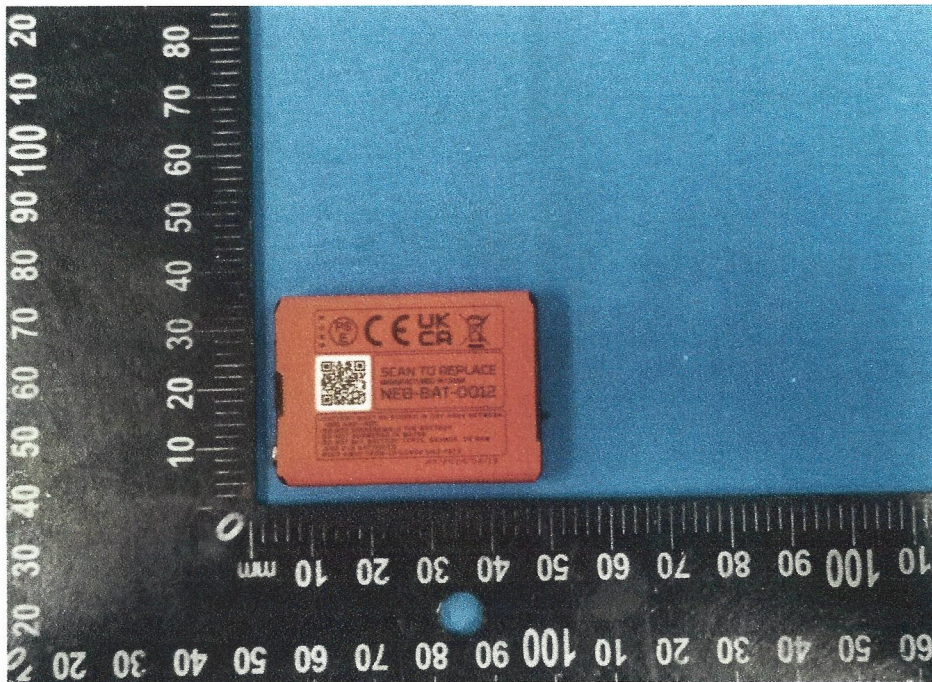


Photo 2 of sample



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