



MSDS Report

Product name : **GotWay Li-ion Battery**
M/N : **NCR18650PF**
Prepared for : **Dongguan kebye Intelligent Technology Co., Ltd.**
Address : 1/f, building A, No.1 xiubian industrial zone south-north road, north community, Humen, Dongguan , Guangdong, China
Prepared by : **Shenzhen BEL Technology Co., Ltd.**
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Report Number : **BEL20200000101767**
Date of Test : **Jan. 02- Jan. 08, 2020**
Date of Report : **Jan. 08, 2020**

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Reviewer by : *Randy ell*

Approved by : *Andy Shi*





Material Safety Data Sheet

Section 1 – Chemical Product and Company Identification

Product name: GotWay Li-ion Battery
Applicant: Dongguan kebye Intelligent Technology Co., Ltd.
Address: 1/f, building A, No.1 xiubian industrial zone south-north road, north community, Humen, Dongguan , Guangdong, China
Post code:
Manufacturer: Dongguan kebye Intelligent Technology Co., Ltd.
Address: 1/f, building A, No.1 xiubian industrial zone south-north road, north community, Humen, Dongguan , Guangdong, China
Email: service_gotway@kebye.com
Tel: +86-0769-82707130
Fax: +86-0769-82707130
Emergency phone: +86-13632303701

Section 2 – Composition/Information on Ingredient

Product name: GotWay Li-ion Battery

Ingredient	Concentration	CAS NO.
Ni	32.0%	7440-02-0
Co	28.0%	7440-48-4
Mn	40.0%	7439-96-5



Section 3 – Hazards Identification

Health Hazards (Acute and Chronic):

These chemicals are contained in a sealed can risk of exposure occurs only if the battery is mechanically or electrically abused. Contact of electrolyte with skin and eyes should be avoided.

Sign/Symptoms of Exposure

N/A

Section 4 – First Aid Measures

Skin:

If the internal battery materials of an opened battery cell come into contact with the skin, immediately flush with plenty of water. Call a physician.

Eye:

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

Inhalation:

If inhaled the internal materials of battery, remove immediately to fresh air and seek medical attention.

Ingestion:

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



Section 5 – Fire Fighting Measures

Flash Point: N/A

Auto-Ignition Temperature: N/A

Extinguishing Media:

Dry chemical type extinguishers are the most effective means to extinguish a battery fire. A CO₂ extinguisher will also work effectively.

Special Fire-fighting Procedures:

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

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 Measures

The material contained within the battery would only be released under abusive conditions. In the event of battery rupture and leakage, collect all the released materials that are not hot or burning in an appropriate waste disposal container while wearing proper protective clothing and ventilate the area. Placed in approved container and disposed according to the local regulations.



Section 7 – Handling and Storage

Handling

1. Never disassemble or modify a battery.
2. Do not immerse, throw, and wet a battery in water.
3. Should a battery unintentionally be crushed, thus releasing its contents, rubber gloves must be used to handle all battery components. Avoid the inhalation of any vapors that may be emitted.
4. Short circuit causes heating. In addition, short circuit reduces the life of the battery and can lead to ignition of surrounding materials. Physical contact with to short-circuited battery can cause skin burn.
5. Avoid reversing the battery polarity, which can cause the battery to be damaged or flame.
6. In the event of skin or eye exposure to the electrolyte, refer to Section 4, First Aid Measures.

Storage

1. Batteries should be separated from other materials and stored in a noncombustible, well ventilated, sprinkler-protected structure with sufficient clearance between walls and battery stacks. Do not place batteries near heating equipment, nor expose to direct sunlight for long periods.
2. Do not store batteries above 35°C or below -20°C. Store batteries in a cool (about 20 ± 5°C) in a long time, dry and ventilated area that is subject to little temperature change. Elevated temperatures can result in reduced battery cycle life. Battery exposure to temperatures in excess of 60°C will result in the battery venting flammable liquid and gases.
3. Keep batteries in original package until use and do not jumble them.



Section 8 – Exposure Controls, Personal Protection

Engineering Controls:

Keep away from heat and open flame.

Ventilation:

Not necessary under conditions of normal use. In case of abuse, use adequate mechanical ventilation (local exhaust) for the battery that vent gas or fumes.

Respiratory Protection:

Not necessary under conditions of normal use. If battery is burning, leave the area immediately. During fire fighting fireman should use self-contained breathing, full-face respiratory equipment. Fires may be fought but only from safe fire fighting distance, evacuate all persons from the area of fire immediately.

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.

Other Protect:

Use good chemical hygiene practice. Wash hands thoroughly after cleaning-up a battery spill caused by leaking battery.

No smoking, drinking and eating at working site.

Wash thoroughly after handling.

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Section 9 – Physical and Chemical Properties

Appearance:	Not applicable
Odor:	Odorless
PH:	Not applicable
Vapor pressure:	Not applicable
Vapor density:	Not applicable
Boiling point:	Not applicable
Specific gravity:	Not applicable
Density:	Not applicable
Solubility in water:	Insoluble
Nominal Voltage:	Not applicable
Rated Capacity:	Not applicable
Packaging Standard:	PI966



Section 10 – Stability and Reactivity

Stability:

Stable under normal temperatures and pressures.

Conditions to Avoid:

Avoid exposure to heat and open flame.

Avoid mechanical or electrical abuse.

Prevent short circuits.

Prevent movement which could lead to short circuits.

Materials to Avoid:

Strong oxidizing agents, Corrosives.

Hazardous Polymerization:

Will not occur.

Hazardous Decomposition Products:

The battery may release irritative gas once the electrolyte leakage.

Section 11 – Toxicological Information

Toxicity Data: Not available.

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

Section 12 – Ecological Information

When promptly used or disposed the battery does not present environmental hazard.

When disposed, keep away from water, rain and snow.

Section 13 – Disposal Considerations

1. Disposal of the battery should be performed by permitted, professional disposal firms knowledgeable in Federal, State or Local requirements of hazardous waste treatment and hazardous waste transportation.
2. The battery should be completely discharged prior to disposal and/or the terminals taped or capped to prevent short circuit. When completely discharged it is not considered hazardous.
3. The battery contains recyclable materials. Recycling options available in your local area should be considered when disposing of this product, through licensed waste carrier.



Section 14 – Transport Information

According to the packaging instruction 965 section II of IATA DGR 56th Edition for transportation or the special provision 188 of IMDG, or the Recommendations on The Transport of Dangerous Goods-Model Regulations.

The goods are not subject to dangerous goods.

More information concerning shipping, testing, marking and packaging can be obtained from label master at <http://www.labelmaster.com>.

Take in a cargo of them without falling, dropping, and breakage. Prevent collapse of cargo piles and wet by rain.

Transport fashion: By air, by sea, by railway, by road.

Section 15 – Regulatory Information

Law 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》
- 《Occupational Safety and Health Act》 (OSHA)
- 《Toxic Substances 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 – Additional 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.

NOTE:

14 TRANSPORTATION/SHIPPING INFORMATION

US DOT, All batteries are not subject to the requirements of the Department of Transportation (DOT) subchapter C, Hazardous Material Regulations since each battery meets the exceptions under 173.185 (b). The batteries are exempted from the US DOT regulations as long as they are separated to prevent short circuits and packed in strong packing for conditions normally encountered in transportation.

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► ICAO and IATA, all batteries are regulated as Hazardous Material by the International Civil Aviation Organization (ICAO), the International Air Transport Association (IATA) and International Maritime Dangerous Goods Regulations (IMDG). The only DOT requirement for shipping these batteries is special provision 130 which states: "Batteries, dry are not subject. They must be transported according to Section 38.3 of the Fifth Revised Edition Amendment 2 of the Recommendations on the Transport of Dangerous Goods, Manual of Test and Criteria (ST/SG/AC.10/11/Rev.5/Amend.2/Section 38.3) and Drop test of Section II of Packing Instructions 968~970 of 56th DGR Manual of IATA .

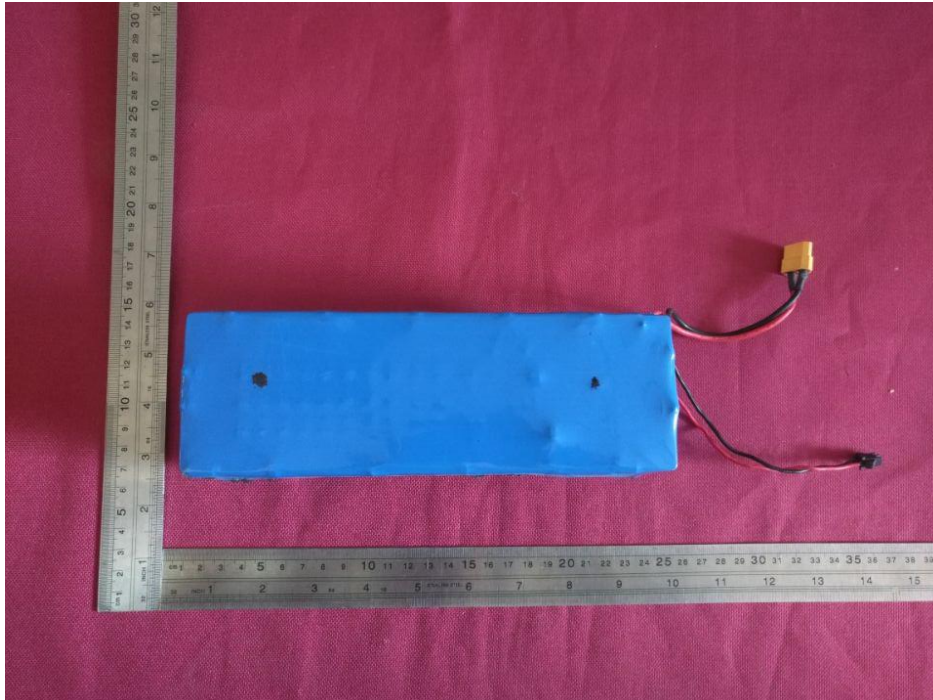
The lithium cell (CR2032) has passed the test UN38.3, according to the report ID: RZUN2015-0019.

PHOTOGRAPHS OF TEST SAMPLE

EUT Photo 1



EUT Photo 2



***** END OF REPORT *****