



MSDS REPORT

For

Rechargeable Lithium ion Cell
Model Number: 445870

Report Number : WT203200327

Test Laboratory : Shenzhen Academy of Metrology and Quality Inspection
Site Location : No.92,Longzhu Avenue, Nanshan District, Shenzhen, Guangdong, China
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重要声明

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SMQ is a legal non-profit technical institute established by Shenzhen Municipal Government to undertake the quality supervision and inspection of products, and to provide technical support to relevant supervision and administration and also conduct commission test from the society.

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Any objections to the testing results of supervision sampling of agricultural products should apply for retest within 5 days upon receiving the test report to the administrative department of agriculture who organizes and implements agricultural products' supervision sampling or its superior department. Any objections to the testing results of supervision sampling of food should apply for retest within 7 days upon receiving the test report to the administrative department of food and drug who organizes and implements supervision sampling for food or its superior department. Any objections to other inspection report issued by SMQ should be submitted to SMQ within 15 days after the issuance of the test report.

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投诉电话： 0755-86009898-31206（西丽 Xili） 0755-26941613（龙珠 Longzhu）

Complaint hotline : 0755-27528392（龙华 Longhua）



TEST REPORT DECLARATION

Applicant : Hunan Times New Energy Technology Co., Ltd.
Address : 7/F, Comprehensive Building, Innovation Pioneer Park,
High-tech Industrial Development Zone, Wuxi, Luxi, Hunan,
China
Factory : Hunan Times New Energy Technology Co., Ltd.
Address : Tai He Mei Industrial Park, High-tech Industrial
Development Zone, Wuxi, Luxi, Hunan, China
Product Name : Rechargeable Lithium ion Cell
MODEL No : 445870
Trade mark : TIMES
Date of EUT : 2020-03-20
Receive

Test Standards:

ST/SG/AC.10/30/Rev.7-2017 Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

The Sample described above is tested by Shenzhen Academy of Metrology and Quality Inspection Battery Laboratory to determine the battery performance. Shenzhen Academy of Metrology and Quality Inspection Battery Laboratory is assumed full responsibility for the accuracy of the test results.

The test report is valid for above tested sample only and shall not be reproduced in part without written approval of the laboratory.

Project Engineer: 陈静 Date: Apr.22,2020
(Chen Jing)
Checked by: 杨东平 Date: Apr.22,2020
(Yang Dongping)
Approved by: 林斌 (副部长) Date: Apr.22,2020
Lin Bin(Undersecretary)



Material Safety Data Sheet

Section 1—Chemical product and company identification

Chemical product information

Sample Description	:	Rechargeable Lithium ion Cell
Sample Model	:	445870
Nominal Voltage	:	3.7V
Charge Limited Voltage	:	4.2V
Minimum Capacity	:	2200mAh
Energy	:	8.1Wh
Sample Receiving Date	:	2020-03-20
Sample Uses	:	---

Supplier information

Manufacturer	:	Hunan Times New Energy Technology Co., Ltd.
Address	:	7/F, Comprehensive Building, Innovation Pioneer Park, High-tech Industrial Development Zone, Wuxi , Luxi , Hunan , China
Tel	:	13510344310(Zhiqiang Zhang)
Emergency telephone	:	13510344310(Zhiqiang Zhang)
E-mail	:	zhangzhiqiang@timesenergy.cn

Section 2—Hazards identification

Physical and chemical hazards	:	See section 10.
Health hazards	:	See section 11.
Environmental hazards	:	See section 12.
Other hazards	:	No information available
Classification according to GHS	:	Not a dangerous substance according to GHS.
Emergency overview	:	These chemicals are contained in a sealed bag. During normal use, the product should not result in hazards. Risk of exposure occurs only if the cell is mechanically or electrically abused.



Section 3—Composition/information on ingredients

<input type="checkbox"/> Substance <input checked="" type="checkbox"/> mixture	Molecular	CAS No.	Weigh
ingredient			
Graphite	C	7782-42-5	20%-23%
Manganese	Mn	7439-96-5	17%-21%
Lithium	Li	7439-93-2	1%-3%
Nickel	Ni	7440-02-0	10%-13%
Cobalt	Co	7440-48-4	4%-5%
Aluminium	Al	7429-90-5	4%-6%
COPPER	Cu	7440-50-8	8%-11%
Lead	Pb	7439-92-1	Not Detected
Cadmium	Cd	7440-43-9	Not Detected
Mercury	Hg	7439-97-6	Not Detected

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

Section 4—First-aid measures

- General information : No special measures required.
- After inhalation : Remove victim to fresh area. Administer artificial respiration if breathing is difficult. Seek medical attention.
- After skin contact : Remove contaminated clothing and shoes. Immediately wash with water and soap and rinse thoroughly. Wash clothing and shoes before reuse. If irritation occurs, get medical attention.
- After eye contact : Flush eyes with plenty of water for several minutes while holding eyelids open. Get medical attention if irritation persists.
- After swallowing : Do not induce vomiting. Get medical attention.
- The main symptoms : No relevant details information.
- Health effects : No relevant details information.
- To protect the rescuers advice : No relevant details information.
- To the doctor's advice : Need timely medical treatment and special symptoms, no relevant details information.



Section 5—Fire-fighting measures

- Suitable extinguishing agents : Use extinguishing agent suitable for local conditions and the surrounding environment. Such as dry powder, CO₂.
- Special hazards arising from the substance or mixture : Cells may burst and release hazardous decomposition products when exposed to fire situation. Lithium ion cells contain flammable electrolyte that may vent, ignite and produce sparks when subjected to high temperature (> 150 °C), when damaged or abused; may burn rapidly with flare-burning effect; may ignite other cells in clothes proximity.
- Attention extinguishing method and protective measures : Wear self-contained respirator. Wear fully protective impervious suit.

Section 6—Accidental release measures

- Homework personnel protective measures, protective equipment and emergency disposal procedures : Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation.
- Environmental precautions : Do not allow material to be released to the environment without proper governmental permits.
- Steps to be taken in case material is spilled or released and waste disposal method : Remove ignition sources, evacuate area. Sweep up using a method that does not generate dust. Collect as much of the spilled material as possible, placed the spilled material into a suitable disposal container. Keep spilled material out of sewers, ditches and bodies of water. All waste must refer to the United Nations, the national and local regulations for disposal.
- To prevent the secondary disasters prevention measures : See section 7 for information on safe handling.
See section 8 for information on personal protection equipment.
See section 13 for disposal information.



Section 7—Handling and storage

- Precautions for safe handling : Avoid mechanical or electrical abuse. The cells 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 cell, forced over-discharge, throw to fire. Do not crush or puncture the cell, or immerse in liquids. Consumption of food and beverage should be avoided in work areas. Wash hands with soap and water before eating, drinking. Ground containers when transferring liquid to prevent static accumulation and discharge.
- Conditions for safe storage, including any incompatibilities : Requirements to be met by storerooms and receptacles. Store in a cool, dry, well-ventilated place, which is subject to little temperature change. Keep away from heat, avoiding the long time of sunlight.

Section 8—Exposure Controls and personal Protection

- Biological limit detection : No relevant details information.
- General protective and hygienic measures : The usual precautionary measures for handling chemicals should be followed.
Keep away from foodstuffs, beverages and feed.
Remove all soiled and contaminated clothing immediately. Wash hands before breaks and at the end of work.
- Respiratory protection : In case of cell venting, provide as much ventilation as possible. Use suitable respirator when high concentrations are present. Protection is not necessary under conditions of normal use.
- Hands protection : Wear protective gloves.
- Eyes protection : Wear tightly sealed goggles.
- Skin and body protection : Wear suitable protective clothing to minimize contact with skin. The type of protective equipment must be according to the concentration and the content of certain hazardous substances in the workplace.



Section 9—Physical and chemical properties

Physical properties

Appearance	:	Silvery-white
Form	:	Pouch
Odour	:	Odourless

Chemical properties

Positive material	:	Nickel cobalt manganese oxide lithium and lithium manganate
Negative material	:	Graphite

Electrical properties

Rated capacity	:	2200mAh
Energy	:	8.1Wh
Normal voltage	:	3.7V

Section10—Stability and reactivity

Chemical stability	:	Stable in normal circumstances.
Possibility of hazardous reaction	:	Data not available.
Conditions to avoid	:	Heating, mechanical abuse and electrical abuse.
Incompatibilities	:	If leaked, forbidden to contact with strong oxidizers, mineral acids, strong alkalis, halogenated hydrocarbons.
Hazardous combustible products	:	Lithium oxide fumes, hydrogen.



Section11—Toxicological information

- Acute toxicity LD/LC50 : Not available.
values relevant for classification Note: LC-lethal concentration, 50 percent kill
LD-lethal dose, 50 percent kill.
- Skin irritation/ corrosion : Exposure to internal contents, the corrosive fumes will be very irritation to skin. overexposure can cause symptoms of non-fibrotic lung injury.
- Eyes stimulus/ corrosion : Exposure to internal contents, the corrosive fumes will be very irritation to eyes and mucous membranes. overexposure can cause symptoms of membrane irritation.
- Breathing or skin irritation : No further relevant information available.
- Germ cell respectively : No further relevant information available.
- Carcinogenicity : No further relevant information available.
- Reproductive toxicity : No further relevant information available.
- Specific target organ system toxicity disposable contact : No further relevant information available.
- Specific target organ system toxicity repeated contact : No further relevant information available.
- Inhalation hazard : No further relevant information available.
- Potentially harmful effects : No further relevant information available.

Section12—Ecological information

- Aquatic toxicity : No further relevant information available.
- Persistence and degradability : No further relevant information available.
- Behavior in environmental systems : No further relevant information available.
- Bioaccumulative potential : No further relevant information available.
- Mobility in soil : No further relevant information available.
- Additional ecological information : Do not allow material to be released to the environment without proper governmental permits.



Section13—Disposal considerations

Waste treatment : Consult state, local or national regulations to ensure methods and proper disposal.

and recommendation

Uncleaned packaging : Disposal must be made according to official regulations. and recommendation

Section14—Transport information

	IATA	IMDG
UN Number	UN3480	UN3480
UN Proper shipping name	Lithium ion batteries (including lithium ion polymer batteries)	Lithium ion batteries (including lithium ion polymer batteries)
Transport hazard class(es)	9	---
Packing group	PI 965 section I B	---
Marine pollutant	No	No

Transport information : The rechargeable lithium ion cell (445870, 2200mAh, 3.7V) has passed the test UN38.3, according to the report ID: WT203200326, issued by Shenzhen Academy of Metrology & Quality Inspection.

According to the Packing Instruction 965 section I B of IATA DGR 61st 2020 the package is classified as dangerous goods Class (or division) 9, UN3480 by air. Cargo aircraft only.

According to the IMDG CODE (Amdt 39-18) special provision 188, the package is not restricted by sea.

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

Separate Li-ion polymer cell when shipping to prevent short-circuiting. They should be packed in strong packaging for support during transport. 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.



Section15—Regulatory information

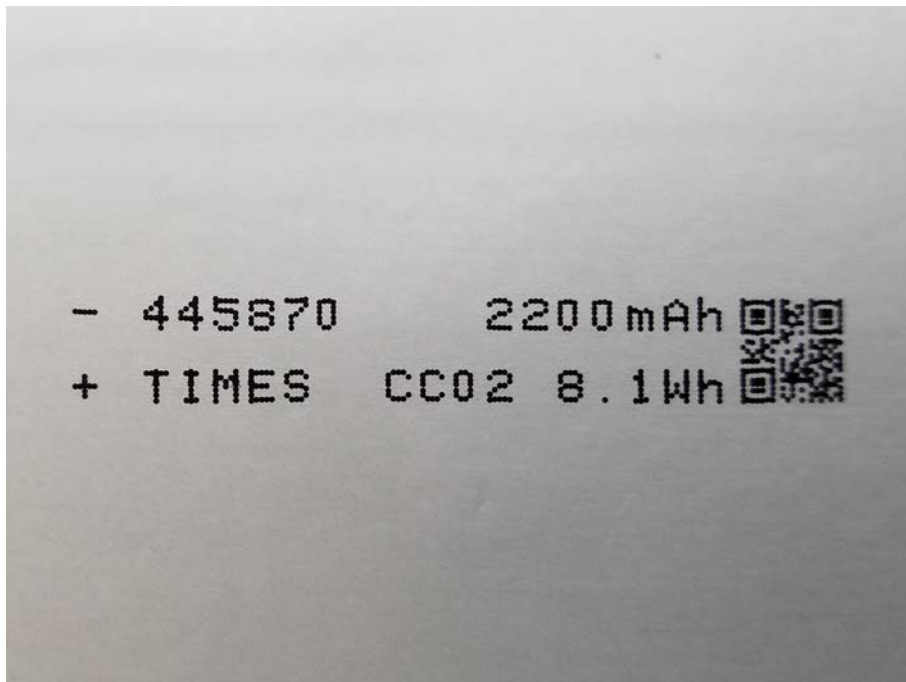
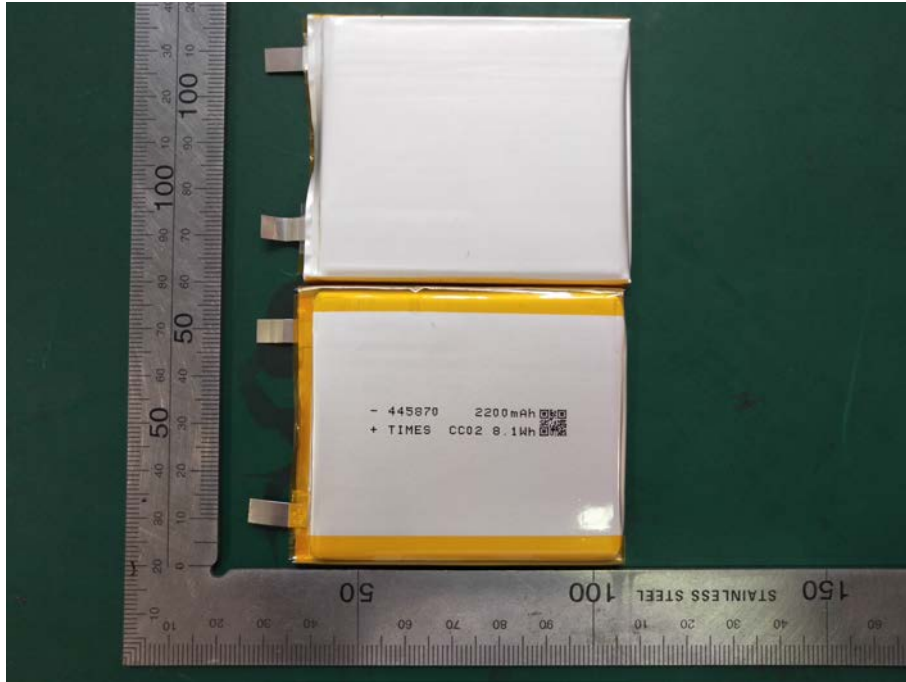
- 《Dangerous Goods Regulation》 (DGR)
- 《Recommendations on the Transport of Dangerous Goods Model Regulations》
- 《International Maritime Dangerous Goods》
- 《Technical Instructions for the Safe Transport of Dangerous Goods》
- 《Classification and code of dangerous goods》
- 《Occupational Safety and Health Act》 (OSHA)
- 《Toxic Substances Control Act》 (TSCA)
- 《Consumer Product Safety Act》 (CPSA)
- 《Federal Environmental Pollution Control Act》 (FEPCA)
- 《The Oil Pollution Act》 (OPA)
- 《Resource Conservation and Recovery Act》 (RCRA)
- 《Safety Drinking Water Act》 (CWA)
- 《Code of Federal Regulations》 (CFR)

In accordance with all Federal, State and Local laws.

Section16—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.

Photos



End of Report