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NO.2620040163

# SAFETY DATA SHEET

Product Name: Lithium Battery ZLG2413-HL 24V 312Wh

Effective Date: 2020-05-11

Compiler: Liu Lintin

Checker: Dongxuesheng

Approver: Zhangxiaojin



Shanghai Research Institute of Chemical Industry Testing Co., Ltd.



# Zhangjiagang Herui Medical Device Co.,Ltd

## SAFETY DATA SHEET

### Lithium Battery ZLG2413-HL 24V 312Wh

#### SECTION1 PRODUCT AND COMPANY IDENTIFICATION

**Product name:** Lithium Battery ZLG2413-HL 24V 312Wh  
**Company:** Zhangjiagang Herui Medical Device Co.,Ltd  
**Address:** No. 42, Baixiong Road, Sanxing, Jinfeng Town, Zhangjiagang City (Beside Derun Machinery), 215624, P. R. China  
**Email:** /  
**Fax:** 86-512-5865248  
**Emergency Phone:** 86-13127836593  
**SDS Number:** 2620040163  
**Effective Date:** 2020-05-11

#### SECTION2 HAZARDS IDENTIFICATION

##### Hazards Identification:

Class 9, miscellaneous. The battery has passed the test items of UN Model Regulations, Manual of Test and Criteria Section UN 38.3.

##### Emergency Overview:

Caution: Avoid contact and inhalation the electrolyte contained inside the battery.

#### SECTION3 INFORMATION ON INGREDIENTS

**Product name:** Lithium Battery ZLG2413-HL 24V 312Wh

| Ingredient                            | Concentration | CAS No.                              | EC No.    |
|---------------------------------------|---------------|--------------------------------------|-----------|
| Lithium nickel cobalt manganese oxide | 30-40%        | /                                    | /         |
| Graphite                              | 12-22%        | 7782-42-5                            | 231-955-3 |
| Electrolyte                           | 5-16%         | 21324-40-3/96-49-1/244-334-7/202-510 | -0//      |
| Copper foil                           | 5-15%         | 623-53-0<br>7440-50-8                | 231-159-6 |
| Aluminum foil                         | 2-7%          | 7429-90-5                            | 231-072-3 |

#### SECTION4 FIRST-AID MEASURES

##### Skin Exposure:

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

**Eye Exposure:**

In case of the internal battery materials in 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 Exposure:**

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

**Oral Exposure:**

If swallowed the internal materials of battery, do not induce vomiting. Seek immediate medical attention.

**SECTION5 FIRE FIGHTING MEASURES****Extinguishing Media:**

Suitable: Dry chemical, Sandy soil, Carbon dioxide or appropriate foam.

**Firefighting:**

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

Specific hazards: Emit toxic fumes under fire conditions.

**SECTION6 ACCIDENTAL RELEASE MEASURES****Procedure of Personal Precaution:**

If batteries show signs of leaking, avoid skin or eye contact with the material leaking from the battery. Use chemical resistant rubber gloves and non-flammable absorbent materials for clean up. Mix with inert material (e.g. dry sand, vermiculite) and transfer to sealed container for disposal.

**SECTION7 HANDLING AND STORAGE****Handling:**

Keep away from ignition sources, heat and flame. Such batteries must be packed in inner packages in such a manner as to effectively prevent short circuits and to prevent movement which could lead to short circuits. Avoid mechanical or electrical abuse. More than a momentary short circuit will generally reduce the battery service life. Avoid reversing battery polarity within the battery assembly. In case of a battery unintentionally be crushed, rubber gloves must be used to handle all battery components. Avoid contact with eyes, skin. Avoid inhalation. No smoking at working site. Materials to Avoid: Strong oxidizing agents, Corrosives.

**Storage:**

Store in a cool, well-ventilated area. Keep away from ignition sources, heat and flame. Such batteries must be packed in inner packages in such a manner as to effectively prevent short circuits and to prevent movement which could lead to short circuits. Materials to Avoid: Strong oxidizing agents, Corrosives.

**SECTION8 EXPOSURE CONTROL/PPE****Engineering Controls:**

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

**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:**

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

**SECTION9 PHYSICAL/CHEMICAL PROPERTIES**

**Appearance:** Black plastics cement shell  
**Odor:** Odorless  
**Melting Point/°C:** >300°C  
**Solubility:** Partial soluble in water

**SECTION10 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:**

Metal oxides, CO, CO<sub>2</sub>.

**SECTION11 TOXICOLOGICAL INFORMATION****Toxicity Data:**

Not available.

**Irritation Data:**

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

**SECTION12 ECOLOGICAL INFORMATION**

No data available.

**SECTION13 DISPOSAL CONSIDERATION****Appropriate Method of Disposal of Substance:**

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.

**SECTION14 TRANSPORT INFORMATION**

Lithium ion  
batteries packed  
with the Stair  
Stretchers during  
transport:

The product has passed the test items of UN Model Regulations, Manual of Test and Criteria Section 38.3. The total net weight of the lithium batteries is less than 5 kg.

**IATA DGR (61<sup>th</sup> Edition) :** Proper Shipping Name: Lithium ion batteries packed with the equipment UN Number: UN3481  
Hazard Class: 9 The product shall meet the General Requirements and section I of Packaging Instruction 966.

According to 3.9.2.6.1(g) of IATA DGR (61<sup>th</sup> Edition), Manufacturers and subsequent distributors of cells or batteries manufactured after 30 June 2003 shall make available the test summary as specified in the Manual of Tests and Criteria, Part III, sub-section 38.3, paragraph 38.3.5.

**IMO IMDG Code (2018 Edition) :** Proper Shipping Name: Lithium ion batteries packed with the equipment UN Number: UN3481  
Hazard Class: 9 EmS No: F-A, S-I

According to 2.9.4.7 of IMDG Code(2018 Edition), Manufacturers and subsequent distributors of cells or batteries manufactured shall make available the test summary as specified in the Manual of Tests and Criteria, Part III, sub-section 38.3, paragraph 38.3.5.

### SECTION15 REGULATORY INFORMATION

**ICAO:**

1. Unless be exempted according to ICAO TI, the lithium ion cell/batteries (UN 3480, PI 965) and lithium metal cell/batteries (UN 3090, PI 968) are forbidden for carriage on passenger aircraft.
2. Unless be approved according to ICAO TI, Lithium ion cells/batteries (UN 3480, PI 965) must be offered for transport at a state of charge (SoC) not exceeding 30% of their rated design capacity.
3. A shipper is not permitted to offer for transport more than one (1) package prepared according to Section II of PI 965 and PI 968 in any single consignment. Not more than one (1) package prepared in accordance with Section II of PI 965 and PI 968 may be placed into an overpack.
4. Packages prepared according to Section II of PI 965 and PI 968 must be offered to the operator separately from other cargo and must not be loaded into a unit load device (ULD) before being offered to the operator.

### SECTION16 OTHER INFORMATION

**Date:**

2020-05-11

**Department:**

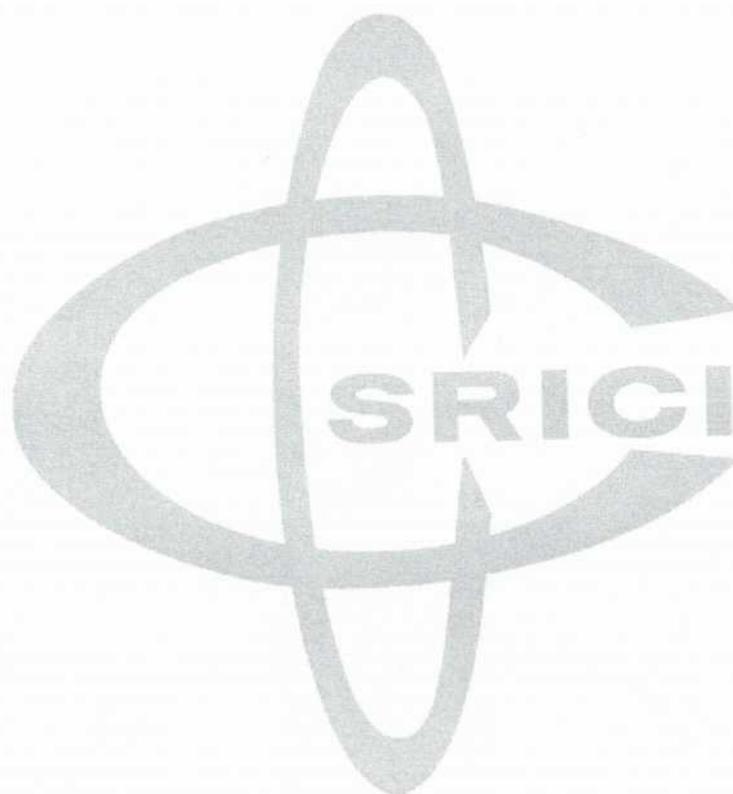
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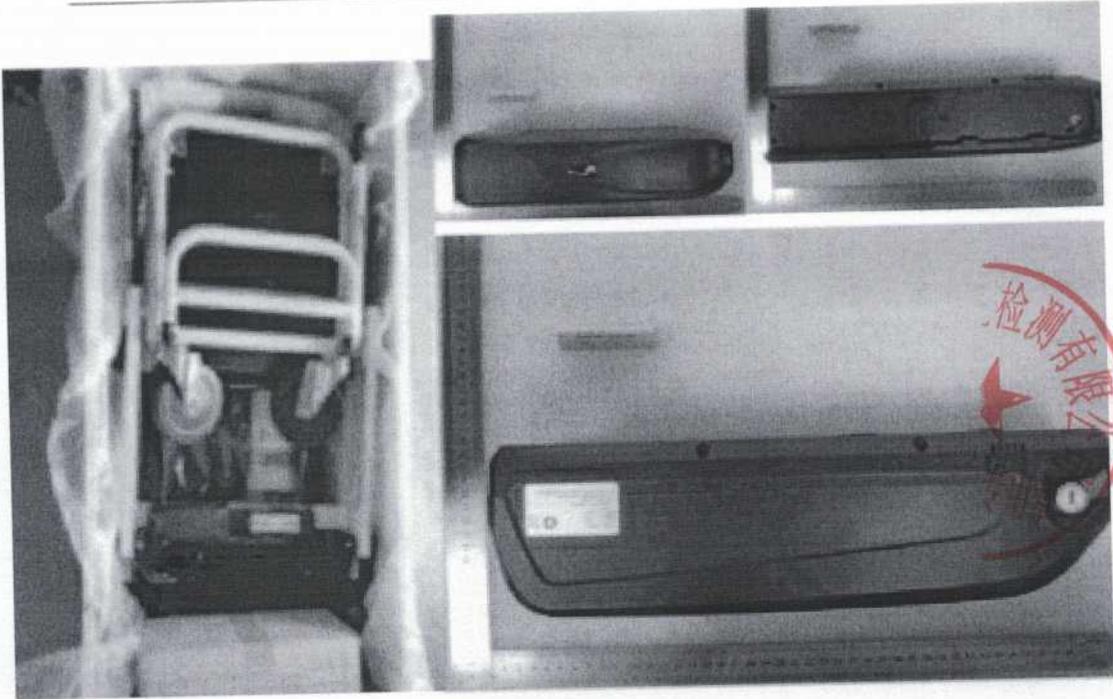
**Revision:**

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**Other Information:**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. We make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of the information for their particular purposes. In no way shall we be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising from using the above information.





产品型号: ZIG2413-ML

电芯型号: 18650

电池容量: 312Wh

标称电压: 24V

注意事项:

1. 请按说明书正确使用。
2. 请勿短接、反接。
3. 请勿投入液体中或靠近火源。
4. 请勿撞击或刺穿电池，勿私自拆卸。

