



宁波中盛产品检测有限公司  
Ningbo Joysun Product Testing Service Co., Ltd

报检号/No.: 232000026999



中国认可  
检验  
INSPECTION  
CNAS IB0335

## 安全数据单

### Safety Data Sheet

样品名称: 锂电池组 型号: **BT775 Li 48 43.2V**  
**48V(MAX)7.5Ah 324Wh**  
**Li-ion Battery pack**

Name of Goods: **Model: BT775 Li 48 43.2V**  
**48V(MAX)7.5Ah 324Wh**

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The report is responsible for the received samples only, unless they are taken by ourselves.

## Safety Data Sheet

### 安全数据单

#### Section 1 Identification

##### 第一节 标识

**Product Name:** Li-ion Battery pack Model: BT775 Li 48 43.2V 48V(MAX)7.5Ah 324Wh

**产品名称:** 锂电池组 型号: BT775 Li 48 43.2V 48V(MAX)7.5Ah 324Wh

**Supplier by:** Zhejiang Lera New Energy Power Technology Co., Ltd.

No.398, Longtan Road, Longtan village, Fenghua City, Ningbo. China

Phone Number: +86-15062414116

**供应商:** 浙江动一新能源动力科技股份有限公司

浙江省宁波市奉化区龙潭村龙潭路398号

电话: +86-15062414116

**Emergency phone Number:** -

应急电话: -

#### Section 2 Hazard Identification

##### 第二节 危险性概述

**Primary Routes of Entry:**

进入人体的主要途径:

**Skin contact, Skin absorption, Eye contact, Inhalation, and Ingestion:** NO

皮肤接触,皮肤吸收,眼接触,吸入,摄入:无

**Symptoms of Exposure:** N/A

暴露的症状: 不适用。

**Skin contact:** No effect under routine handling and use.

皮肤接触: 日常操作和使用没有影响。

**Skin absorption:** No effect under routine handling and use.

皮肤吸收: 在日常操作和使用没有影响。

**Eye contact:** No effect under routine handling and use.

眼接触: 日常操作和使用没有影响。

**Inhalation:** No effect under routine handling and use.

吸入: 日常操作和使用没有影响。

**Reported as Carcinogen:** N/A

致癌物报告: 不适用

This product described in this Product Safety Data Sheet are sealed units which are not hazardous when used according to the recommendations of the manufacturer and as long as their integrity is maintained.

在安全数据单中描述的该产品是整体密封的, 只要按照制造商的使用建议保持其完整性是不会有危害的。

Do not open, puncture, incinerate, crush, deform, disassemble, force discharge, expose to water, or expose to temperatures above the declared operating temperature range of the product. Fire, explosion and severe burn hazards may occur in such abuse conditions.

Keep this product away from small children. International Standard IEC 60086-4 contains more detailed information on safety of lithium batteries.

不要打开、穿刺、焚烧、破碎、变形、拆卸、强力释放、暴露于水，或者暴露于产品允许的使用温度范围之外。在滥用条件下可能发生爆炸、起火、严重烧伤的危害。保持该产品远离小孩。国际标准 IEC 60086-4 包含了关于锂电池的更多的安全信息细节。

### Section 3 Composition/Information on Ingredients

#### 第三节 组成/成分信息

Component 组分	CAS Number CAS号	Weight % 质量百分比%
Lithium nickel dioxide 锂镍氧化物	12325-84-7	10-20%
Carbon 碳	7440-44-0	10-20%
Iron 铁	7439-89-6	10-20%
Copper 铜	7440-50-8	5-15%
Lithium nickel dioxide 锂镍氧化物	12031-65-1	1-10%
Aluminium dioxide 钴锂二氧化碳	12190-79-3	1-10%
Dimethyl carbonate 碳酸二甲酯	616-28-6	1-10%
Lithium Manganese (III,IV) Oxide 锂锰氧化物 (III、IV)	12057-17-9	1-10%
Polyethylene 聚乙烯 (PE)	9002-88-4	1-10%
Ethylene carbonate 碳酸亚乙酯	96-49-1	1-3%
Lithium hexafluorophosphate(1-) 锂六氟磷酸盐 (1-)	21324-40-3	1-3%
Graphite 石墨	7782-42-5	1-3%
Ethyl methyl carbonate 乙基碳酸甲酯	623-53-0	1-3%
Trade secret 1	-	0.1-0.99%
Nickel 镍	7440-02-0	0.1-0.99%
1,4-Benzenedicarboxylic acid, 1,4-dimethyl ester, polymer with 1,4-cyclohexanedimethanol and 1,2-ethanediol 1.4 苯丙胺 1	25640-14-6	0.1-0.99%
1- Propene, homopolymer		

1- 丙烯, 同源	9003-07-0	0.1-0.99%
1- methyl-2pyrrolideon	872-50-4	0.1-0.99%
Nickel sulphide 硫化镍	16812-54-7	0.1-0.99%
Poly[N,N'-(1,4-phenylene)3,3'4,4'-benzophenonetetracarboxylic imide/amic acid] 聚[N,N'-(1,4-苯基)3, 3'4,4'-二苯甲酮四羧基酰亚胺/脞酸]	26023-21-2	0.1-0.99%
Silicon 硅	7440-21-3	0.1-0.99%
Trade secret 2	-	0.1-0.99%
Lithium carbonate 碳酸锂	554-13-2	0.1-0.99%
Carbon black 炭黑	1333-86-4	0.1-0.99%
1,3 Butadiene/styrene copolymers 1,3 丁二烯/苯乙烯共聚物	9003-55-8	0.1-0.99%
Acetic acid ethenylester,polymer with carbon monoxide and ethane 醋酸乙烯酯, 一氧化碳和乙烯聚合物	26337-35-9	0.1-0.99%
Carboxymethyl cellulose sodium salt 羧甲基纤维素钠盐	9004-32-4	0.1-0.99%
Succinonitrile 琥珀腈	110-61-2	0.1-0.99%
Aluminum lithium oxide(AlLiO) 铝氧化锂(AlLiO)	11089-89-7	0.1-0.99%

#### Section 4 First-aid Measures

#### 第四节 急救措施

##### Eye Contact:

Immediately flush with plenty of water for at least 15 minutes. In severe cases obtain medical attention

##### 眼睛接触:

迅速用大量水冲洗15分钟以上, 期间提起上下眼睑。速就医

##### Skin Contact:

Immediately wash off skin with plenty of water for at least 15 minutes. Remove contaminated clothing and wash before reuse. In severe cases obtain medical attention.

##### 皮肤接触:

除去附着衣物, 用大量水冲洗15分钟。速就医。

##### Inhalation:

Leave area immediately and move to fresh air. If need to given oxygen.

##### 吸入:

移至通风处。如需要给予输氧。

**Ingestion:**

Drink two cups of milk/water and unconscious of vomiting is prohibited. In severe cases obtain medical attention.

**食入:**

口服2杯牛奶或水。人员无意识下禁止催吐。速就医。

**Section 5 Fire-fighting Measures**

**第五节 消防措施**

**Flash point:**

Don't involve.

**闪点:**

不涉及。

**Ignition point:**

No data.

**燃点:**

无资料。

**Extinguishing Media:**

CO<sub>2</sub>, dry chemical extinguisher.

**灭火剂:**

干粉, CO<sub>2</sub>。

**Fire extinguishing process methods:**

Wearing a self-service breathing machine.

**灭火过程方法:**

佩戴自主呼吸机。

**Combustion hazard:**

Excessive heat can cause inclusions overflow.

**燃爆危害:**

过度加热会导致内含物溢出。

**Combustion products:**

CO<sub>2</sub>, CO, lithium metal oxide, excitant gas and toxic gas.

**燃烧产物:**

二氧化碳, 一氧化碳, 锂的金属氧化物, 气体刺激性和毒性气体。

**Section 6 Accidental Release Measures**

**第六节 意外释放措施**

**Leakage processing:**

When housing of cells contained in this product is damaged, small amounts of electrolyte may leak, evacuees until the smoke clears. If the battery heat, away from the scene, cooling battery, dissipate steam, adequate ventilation. Avoid skin or eyes contact with steam.

**泄漏处理:**

如电池发生破损并且电解液泄漏, 疏散人员直至烟雾散尽。用布擦净, 并装入袋子放入钢桶内。如电池灼热, 先远离现场, 冷却电池, 使蒸汽消散。充分通风。避免皮肤或眼睛接触蒸汽。

**Waste disposal methods:**

Battery discharge should be well, the battery will be discarded due to relevant departments, all

waste must refer to the United Nations, the national and local regulations for disposal. With reference to national environmental protection bureau or federal EPA.

**废弃物处理方法:**

电池应放电完全, 将废弃的电池统一上交于相关部门, 所有废弃物必须参照联合国、国家、地方性法规进行处置, 参照国家环保局或联邦EPA。

## Section 7 Handling and Storage

### 第七节 处置和储存

Battery banned apart, damaged or burning, and forbidden to damage out of electrolyte. Should be stored in an airtight container. Ban on short circuit, over charge, forced discharge, or into the water. Extrusion or puncture the battery is prohibited. Forbidden to battery into the liquid.

电池禁止拆开, 损毁或焚烧, 严禁破损流出电解液。需在密封容器内储存。禁止短路, 过充电, 强制放电, 或投入火中。禁止挤压或刺穿电池。禁止将电池放入液体中。

**Operation and storage:**

Mechanical or electrical damage battery is prohibited. Store this product in dry, cool, ventilated environment without temperature changed or high temperature. Away from heat source, avoid sunlight for a long time.

The battery in the open, extrusion, in case of fire or high temperature conditions, will cause a fire or explosion, it is forbidden to short-circuit or improper operation.

**操作和储存:**

禁止机械或电力损伤电池。储存在干燥, 凉爽, 通风的环境中, 避免温度变化或高温。远离热源, 避免长时间阳光照射。

电池在拆开, 挤压, 遇火或高温情况下, 会引起起火或爆炸, 严禁短路或非正常操作。

## Section 8 Exposure Controls/Personal Protection

### 第八节 接触控制/人身保护

**Respirator:**

If the battery leaks, need to fully ventilated.

**呼吸系统:**

如电池泄漏, 需充分通风。

**Hand protection:**

None required under normal use conditions.

**手防护:**

正常使用下, 不需要。

**Personal protection:**

None required under normal use conditions.

**个人防护:**

正常使用下, 不需要。

**Other protection:**

None required under normal use conditions.

**其他防护:**

正常使用下, 不需要。

Use respirator, butyl gloves, work overalls, chemical goggles when handling leaked product.

如电池发生泄漏, 需佩戴呼吸器, 防护手套, 作业工作服, 化学防护镜。

## Section 9 Physical and Chemical Properties

## 第九节 物理和化学特性

**Lithium Batteries Standard voltage:** 43.2V

锂电池组标准电压: 43.2V

**The rated capacity:** 7.5Ah

额定容量: 7.5Ah

**Electricity:** 324Wh

电能: 324Wh

**Appearance and shape:** Yellow and black Plastics shell

外观与性状: 黄色黑色塑料外壳

**Chemicals USES:** Li-ion Battery Pack

产品用途: 锂电池组

## Section 10 Stability and Reactivity

### 第十节 稳定性和反应性

**Stability:**

Good stability under normal use .

**稳定性:**

正常使用下, 稳定性良好。

**Taboo thing :**

High temperature, mechanical or electrical damage.

**禁忌物:**

高温、高热, 机械或电力损伤。

**Decomposition product :**

N/A

**热分解产物:**

不适用。

**Polymerization product:**

N/A

**聚合产物:**

不适用。

If leakage avoid contact with strong oxidant acid, alkali, halogen.

如果泄漏, 避免接触强氧化剂, 避免接触酸、碱、卤素。

## Section 11 Toxicological Information

### 第十一节 毒理学信息

When the battery damaged, inhalation of skin or eye contact may produce stimulation. Excitant steam can damage the skin, eyes and respiratory mucosa.

当电池破损时, 吸入, 皮肤接触或眼睛接触可能产生刺激作用。刺激性蒸汽会损伤皮肤, 眼睛和呼吸粘膜。

## Section 12 Ecological Information

### 第十二节 生态信息

**Ecological Information:**

**环境影响:**

The correct use and disposal of batteries will not cause harm to the environment.

正确使用和处置电池不会对环境产生危害。

The disposal of waste battery, away from water, rain and snow.  
处置废弃电池时, 远离水源、雨水和雪水。

### Section 13 Disposal Considerations

#### 第十三节 处置考虑

If the lithium battery is not completely discharge or only under the condition of partial discharge, partial without running out of lithium exists in the battery, the battery will be treated as hazardous waste has certain harm. It must be approved by the relevant institutions to deal with shall be abandoned. Under the relevant laws and regulations permit, the battery can be recycle.

如果锂电池未完全放电或只部分放电的情况下, 由于部分未耗尽的锂存在于电池中, 此电池视为具有一定危害的危险废弃物。必须通过经认可的相关机构对其进行处理方可废弃。在相关法律法规许可下, 电池可循环再利用。

### Section 14 Transport Information

#### 第十四节 运输信息

##### Maritime transport IMDG 2018:

海运IMDG 2018:

IMDG Class:9

海运分类:第9类

UN/ID Number: 3480

联合国编号: 3480

Packaging group: -

包装类别: -

**Proper shipping name:** LITHIUM ION BATTERIES (including lithium ion polymer batteries)

正式运输名称: 锂离子电池组(包括聚合物锂离子电池)

Note: the battery should be in the condition of half charge transport packaging boxes, it also should prevent violent vibration, shock, extrusion, and weathered in the process of transportation. Each battery is of a type proved to meet the Requirement of each test in the UN MANUAL OF TESTS AND CRITERIA, Part III, sub-section 38.3, Report NO. 1120070462.

注: 该电池应在半荷电状态(20—50%充电状态)下包装成箱进行运输, 在运输过程中应防止剧烈振动、冲击或挤压, 防止日晒雨淋。具体细节请参照本文第七部分操作处置及储存。锂电池通过UN38.3测试, 报告编号: NO. 1120070462。

### Section 15 Regulatory Information

#### 第十五节 管理信息

##### China:

The substance is classed as division 9 hazardous chemicals according to Classification and code of dangerous goods (GB 6944-2012、GB 12268-2012).

中国:

常用危险货物分类和品名编号 (GB 6944-2012)、危险货物物品名表 (GB 12268-2012)将该物质划为第 9 类危险品。

### Section 16 Other Information

#### 第十六节 其他信息



The information is to the best of our knowledge and is just used for health, safety and environmental purpose. It shall not be treated as any form of warranty. Please provide a proper training to the person who may use, manage of this material and those safety-handling persons.

本信息是根据我们所掌握的知识所编制, 仅用于健康、安全和环境的目的。请不要将本信息作为任何形式的担保。请对可能使用、处置和需要安全操作本产品的人员提供必要的培训。

**Abbreviation:** N/A= Not available or Not applicable

缩写: N/A=不适用

**Edit Date:** October 13, 2020

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编制机构: 宁波中盛产品检测有限公司

**Update and Revise:** Original edition

修订版本: 初始

**Declaim:** The information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof.

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**The period of validity of the safety data:**

The safety data sheet is based on GHS, TDG, IMDG, IATA-DGR, and "dangerous chemical safety management regulations" and the national standards and other related dangerous chemicals management laws and regulations and standards. The laws and regulations and standards are regularly updated and change.

For the transport of dangerous goods in line with the requirements of the new management, the product safety data sheets should be review and update before October 12, 2021.

**安全数据单有效期:**

该安全数据单是根据《全球化学品统一分类和标签制度》、《联合国关于危险货物运输的建议书》、《国际海运危险货物规则》、航空运输《危险品规则》、《危险化学品安全管理条例》和国家标准等相关危险化学品管理法律法规和标准进行编制, 而上述法律法规和标准均会定期进行更新和变化。

为使运输的危险货物符合相关最新的管理要求, 该产品安全数据单应于 2021 年 10 月 12 日前进行审核更新。

\*\*\*报告结束/End of Report\*\*\*

授权签字人:  
AUTHORIZED SIGNATURE:

