



## Material Safety Data Sheet

### 材料安全数据表

#### Section 1: Chemical Product and Company Identification

##### 第一部分：产品名称及企业标识

Product Name 产品名称	Rechargeable Li-ion Battery 可充电锂离子电池
Type/Model 产品型号	BL07
Nominal Voltage 额定电压	36V
Nominal Capacity 额定容量	14Ah
Manufacturer 生产厂家	Guangdong Greenway Technology Co.,Ltd. 广东博力威科技股份有限公司
Manufacturer Address 生产厂家地址	Tongsha New Industry Park, Dongcheng Street,Dongguan City ,Guangdong Province,P.R.China 东莞市东城街道同沙新工业园
Inspection according to 鉴定依据	UN "Recommendations on the TRANSPORT OF DANGEROUS GOODS" 联合国《关于危险品货物运输的建议书》
Emergency telephone call 紧急联系电话	+86 0769-27282088
Receiving date 接样日期	2021-12-5
Date of issue 签发日期	2021-12-8

## Section 2: Composition/Information on Ingredients

### 第二部分：成分/组成信息

Hazardous Ingredients	%	CAS Number
Aluminum Foil	2-10	7429-90-5
Metal Oxide (proprietary)	20-50	182442-95-1
Styrene-Butadiene-Rubber	<1	9003-55-8
Polyvinylidene Fluoride (PVDF)	<5	24937-79-9
Copper Foil	2-10	7440-50-8
Carbon (proprietary)	10-30	7440-44-0
Electrolyte(proprietary)	10-20	21324-40-3
Steel, Nickel and inert materials	Remainder	N/A

## SECTION 3 – HAZARDS IDENTIFICATION / EMERGENCY OVERVIEW

### 第三部分：危害识别/危险情况概述

Nonflammable Solid 不易燃固体	
Inhalation 吸入	Product is not respirable. 非吸入性产品
Ingestion 食入	Product cannot be ingested. 产品不可食用
Skin Contact 皮肤接触	No adverse effects expected 无不良影响
Eye Contact 眼睛接触	No adverse effects expected .Product will not directly contact the eyes. 无不良影响，产品不会直接接触眼睛

The lithium ion batteries are not hazardous when used according to the instructions of manufacturer under normal conditions. In case of abuse, there's a risk of explode, rupture, fire, heat, leakage of internal components, which could cause casualty loss. Abuses include but not limited to the following cases: charge for a long time, short circuit, put into fire, whack with hard object, puncture with acute object, crush, break.

正常情况下，按照生产商提供的使用说明来使用，是不会有危险的。在滥用的情况下，可能会有内部物质泄漏、发热、着火、外壳开裂等情况发生造成人身伤害和财产损失。滥用情况包括但不限于以下情况：长时间充电、短路、放入火中、用硬物敲击、用尖锐的物体刺穿、挤压、弯曲折断等。

**SECTION 4 – FIRST AID MEASURES****第四部分：急救措施**

Inhalation 吸入	Make the victim blow his/her nose, gargle. Seek medical attention if necessary. 必要时就医
Ingestion 食入	No first aid needed. 不需要急救
Skin Contact 皮肤接触	Remove contaminated clothes and shoes immediately. Immediately wash extraneous matter or contact region with soap and plenty of water. 立即脱去污染的衣服和鞋子，及大量清水、肥皂冲洗接触区域
Eye Contact 眼睛接触	Do not rub eyes. Immediately flush eyes with water continuously for at least 15 minutes. Seek medical attention.不要揉眼睛，立即用清水冲洗眼睛，至少持续 15 分钟，并送医

**SECTION 5 – FIRST FIGHTING MEASURES****第五部分：消防措施**

Extinguish with plenty of water, dry powder extinguishers, sands, earth. Combustion products and decomposed products by contact of water or air with internal substance include: carbon monoxide, carbon dioxide, hydrogen fluoride, phosphorus fluoride.

可用大量的水、干粉灭火器、砂子、土等灭火。燃烧产物和内部物质与空气和水接触的生成物包括：CO、CO<sub>2</sub>、HF、氟氧化磷等。

**Section 6: Accidental Release Measures****第六部分：泄露应急处理**

When leakage of batteries happens, liquid could be absorbed with sands, earth or other inert substance, and the contaminated area should be ventilated meantime.

电芯/电池内部物质泄漏后，用砂子、土或其他惰性物质吸收，并及时通风。

## Section 7: Handling and Storage

### 第七部分：操作处置及储存

Don't handle and store batteries with metalwork. Store and use far away from heat, sparks, open flame, or any other ignition source, and under room temperature ( $<30^{\circ}\text{C}$ ) in ventilating and dehumidifying environments.

在操作和存放时不要使用金属器件和容器。电芯在常温下（ $<30^{\circ}\text{C}$ ）放置，通风除湿，远离火源和热源。

## Section 8: Exposure Controls/Personal Protection

### 第八部分：接触控制与个体防护

There is no need for protect under normal condition. In engineering aspect, ventilation equipment should be installed. Gas mask, blinkers, gloves enduring chemical erosion and exposure suit are required when dealing with fire and leakage.

正常的情况下，个人不需要防护。在工程方面，需要有抽气通风设备。如有着火和内部物质泄漏，在处理时需要戴防毒面具、护目镜、耐化学腐蚀的手套和穿防护服装。

## Section 9: Physical and Chemical Properties

### 第九部分：理化特性

Batteries are not single chemical material; there are no specific physical and chemical properties such as melting point and boiling point.

电芯/电池不是一种单一的化学品，没有特定的理化性能如熔沸点等。

## Section 10: Stability and Reactivity

### 第十部分：稳定性和反应性

Batteries are safe under normal conditions. The following substance might appear after catching fire or leakage: organic carbonate, hydrogen fluoride, carbon monoxide, carbon dioxide, phosphorus fluoride.

在正常的情况下，电芯/电池是安全的。

电芯/电池着火或者内部物质泄漏后，可能出现的物质有：有机碳酸酯、氟化氢、CO、CO<sub>2</sub>、氟氧化磷等。

## Section 11: Toxicological Information

### 第十一部分：毒理学资料

Batteries are not hazardous when used properly. If the batteries catch fire or the internal substance leaks, combustion products and decomposed products might have irritation and toxicity to skin, eye and respiratory systems. Toxicity data of some substance are listed following:

正常使用时，电芯/电池没有毒性。电芯/电池着火或者内部物质泄漏后，燃烧产物、其内部各组分及其与水份接触后的分解产物对人体皮肤、眼睛和呼吸系统有一定的刺激性和毒性。此处列举部分物质的毒理学数据。

Hydrogen fluoride: 氟化氢

Extremely toxic. May be fatal if inhaled or ingested. Readily absorbed through the skin contact may be fatal. Possible mutagen. LCLo: 50 ppm/30m (human beings), LC50: 1276 ppm/1h (rats)。

较大的毒性。吸入或食入可致命，可通过皮肤吸收，可诱导突变。LCLo: 50 ppm/30m (人), LC50: 1276 ppm/1h (小白鼠)。

Carbon and graphite: 碳和石墨

Slightly hazardous in case of skin contact (irritant), of ingestion, of inhalation. Causes chronic damage to upper respiratory tract and cardiovascular system.

皮肤接触有刺激性，吸入和食入有轻微的危害，对上呼吸道和心血管系统有慢性损害。

Copper: Dust may cause respiratory irritation. LD50: 3.5 mg kg<sup>-1</sup>(mouse).

铜：粉尘对呼吸系统有刺激。小白鼠 LD50: 3.5 mg kg<sup>-1</sup>。

Aluminium: There is no hazard. 铝：没有毒性。

## Section 12: Ecological Information

### 第十二部分：生态学资料

There is no influence to ecology and environment when used properly.

正常使用时，电芯/电池不会有生态和环境方面的影响。

## Section 13: Disposal

### 第十三部分：废弃处理

Deserted batteries couldn't be treated as ordinary trash. Be put to garbage box which recycle batteries after being placed into plastic bags or be dealt as special trash. Couldn't be thrown into fire or placed in high temperature. Couldn't be dissected, pierced, crushed or treated similarly. The package and plastic box which contain batteries could be treated as ordinary trash. Best way is recycling.

废弃电芯不能直接当作普通垃圾处理，用塑料袋装好密封放入回收电池的垃圾桶或当作 特殊垃圾处理。废弃电芯不能丢进火中和置于高温环境，不要拆卸，同时不能刺穿和挤压等等。电芯的包装纸盒和塑料盒可作为普通垃圾处理。

## Section 14: Transport Information

### 第十四部分：运输信息

**运输标签：**第九类危险品标识，仅限货机运输标识，唛头

**Label for conveyance:** The Class 9—Lithium Battery hazard label, the Cargo aircraft Only Label, the shipping mark.

**UN 编号：UN3480**

**UN Number: UN3480**

**包装等级：Group II**

**Packing Group: Group II**

**EmS 编号：F-A, S-I**

**EmS No: F-A, S-I**

**海洋污染物：无**

**Marine pollutant: No**

**正确的装运名称：**锂离子电池(含锂离子聚合物电池)

**Proper Shipping name:** Lithium ion batteries (including Lithium ion polymer batteries)

**危险分类：**货物应遵守 IATA 第 63 版 DGR 手册包装说明 965 第 IA 节规定(2022 年版)，和海运危险货物规则 (Amdt. 40-20) 2020 版，包括通过 UN38.3 测试手册要求。

**Hazard Classification:** The goods shall be complied with the requirements of Section IA of Packing Instructions 965 of 63rd DGR Manual of IATA (20

Edition, including the passing of the UN38.3 test. 22 Edition) and IMDG CODE (Amdt. 40-20) 2020

**运输标签：**第九类杂项危险品标识

**Label for conveyance:** The Class 9—Miscellaneous Dangerous Goods

**UN 编号：UN3171**

**UN Number: UN3171**

**包装等级：**不适用



**Packing Group: N/A.**

**EmS 编号: F-A, S-I**

**EmS No: F-A, S-I**

**海洋污染物: 无**

**Marine pollutant: No**

**正确的装运名称: 电池驱动车辆**

**Proper Shipping name: Battery-powered vehicle**

**危险分类:** 货物应遵守 IATA 第 63 版 DGR 手册包装说明 952 规定(2022 年版)和 IMDG CODE (Amdt. 40-20) 2020 版, 包括通过 UN38.3 测试手册要求。

**Hazard Classification:** The goods shall be complied with the requirements of Packing Instructions 952 of 63rd DGR Manual of IATA (2022 Edition) and IMDG CODE (Amdt. 40-20) 2020 Edition, including the passing of the UN38.3 test.

## Section 15: Regulatory Information

### 第十五部分: 法规信息

Law information

《危险物品规则》

《Dangerous Goods Regulations》

《对危险货物运输的有关规定的建议》

《Recommendations on the Transport of Dangerous Goods Model Regulations》

《国际海运危险货物规则》

《International Maritime Dangerous Goods》

《危险品安全运输技术指令》

《Technical Instructions for the Safe Transport of Dangerous Goods》

《危险货物分类和品名编号》

《Classification and code of dangerous goods》

《职业安全卫生法》

《Occupational Safety and Health Act》(OSHA)

《有毒物质控制法》

《Toxic Substance Control Act》(TSCA)

《消费产品安全法》

《Consumer Product Safety Act》(CPSA)

《联邦环境污染控制法》

《Federal Environmental Pollution Control Act》(FEPCA)

《石油污染法案》

《The Oil Pollution Act》(OPA)

《超级基金修正案和再授权法案III(302/311/312/313)》

《Superfund Amendments and Reauthorization Act TitleIII (302/311/312/313)》(SARA)

《资源保护及恢复法案》

《Resource Conservation and Recovery Act》(RCRA)

《安全饮用水法》



广东博力威科技股份有限公司  
Guangdong Greenway Technology Co.,Ltd.

《Safety Drinking Water Act》(CWA)

《加州65提案》

《California Proposition 65》

《美国联邦法规》

《Code of Federal Regulations》(CFR)

根据所有联邦、州和地方法律。

In accordance with all Federal, State and local laws.

## Section 16: Other Information

### 第十六部分：其他信息

This information is not effective to all the batteries manufactured by GW. This information comes from reliable sources, but no warranty is made to the completeness and accuracy of information contained. GW doesn't assume responsibility for any damage or loss because of misuse of batteries. Users should grasp the correct use method and be responsible for the use of batteries.

本 MSDS 中的信息不对博力威生产的所有电池有效。本文信息来源可靠，但博力威不保证来源描述的完整性、精确性等。使用者须掌握正确使用电池的方法并对电池的使用负责，博力威公司对由于电池的滥用而造成的伤害和损失不承担责任。

Prepared: Yanglong

