中国认可
国际互认
检验
INSPECTION
CNAS IB0551

Report No.: FHLD20221231MSDS01

MATERIAL SAFETY DATA SHEET

Product	Rechargeable Li-ion battery
Type/Model	BL-L5H
Issue Date	2023-01-09
Validity	2023-01-09 ～ 2023-12-31
Compiler	Zongxing Xiao
Reviewer	Albert Yip
Approver	Hongbin Fu

广州邦禾检测技术有限公司
检验专用章

广州邦禾检测技术有限公司

Guangzhou MCM Certification & Testing Co., Ltd.

Material Safety Data Sheet

SECTION 1 - CHEMICAL AND COMPANY IDENTIFICATION

Product	Rechargeable Li-ion battery	
Type/Model:	BL-L5H	
Parameter	3.7V, 1400mAh/5.18Wh(Rated); 1450mAh/5.36Wh(Typical)	
Usage	☒ Used in Portable Equipment	☐ Used in Electric Vehicle
	☐ Used in Energy Storage System	☐ Others
Company	GUANGDONG FENGHUA NEW ENERGY CO.,LTD.	
Address	No.3 East of Sanrong Road, Duanzhou District, Zhaoqing, Guangdong Province, China	
Fax	--	
Zip code	--	
E-mail	wuzc@fenghua-lib.com	

Emergency Telephone
0758-2870335

SECTION 2 - HAZARDS IDENTIFICATION

Classification:

This chemical is not considered hazardous by the Regulation (EC) No 1272/2008 (CLP). This product is an article which is a sealed battery and as such does not require an SDS per the Regulation (EC) No 1272/2008 (CLP) unless ruptured. The hazards indicated are for a ruptured battery.

Acute toxicity – Oral	Category 4
Acute toxicity - Dermal	Category 4
Skin corrosion/irritation	Category 1B
Serious eye damage/eye irritation	Category 2
Skin sensitization	Category 1
Carcinogenicity	Category 2
Specific target organ toxicity (repeated exposure)	Category 1

Label elements:

Signal Word: **Danger**

Hazard Statements

H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H318	Causes serious eye damage.
H317	May cause an allergic skin reaction.
H350	May cause cancer.
H371	May cause damage to organs.
H355	May cause respiratory irritation.

Symbol



GHS08



GHS05



GHS07

This product is an article which contains a chemical substance. Safety information is given for exposure to the article as solid. Intended use of the product should not result in exposure to the chemical substance, This is a battery. In case of rupture: the above hazards exist.

Precautionary Statements – Prevention

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P281	Use personal protective equipment as required.
P264	Wash face, hands and any exposed skin thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P210	Keep away from heat/sparks/open flames/hot surfaces –no smoking.
P270	Do not eat, drink or smoke when using this product.

Precautionary Statements – Response

P301+ P330+ P308

If exposed or connected: Get medical advice/attention. Specific treatment(see supplemental first aid/instruction on this label).

Skin: If on skin: wash with plenty of soap and water. Take off contaminated clothing and water before reuse, if skin irritation or rash occurs: get medical advice/attention if feel unwell.

Eye: If in eyes: Rinse cautiously with water for several minutes, remove contact lenses, if present and easy to do, Continue rinsing. Call a POISON CENTER or doctor/physician if you feel unwell.

Inhalation: If inhalation: if breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician if you feel unwell.

Ingestion: If swallowed: rinse mouth, do not induce vomiting, Call a POISON CENTER or doctor/physician if you feel unwell.

Precautionary Statements – Storage

P405	Store locked up

Precautionary Statements – Disposal

P501	Dispose of contents/container to an approved waste disposal plant.

Hazards not otherwise classified (HNOC)

Not applicable

Other information

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Interactions with other chemicals

Use of alcoholic beverages may enhance toxic effect.

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENT

Ingredient	Molecular formula	CAS No.	Weigh
Aluminum Foill	Al	7429-90-5	15.0%
Lithium Nickel Cobalt Manganese Oxide	$LiNi_xCo_yMn_zO_2$	182442-95-1	37.4%
Aluminum Foill	Al	7429-90-5	3.9%
Graphite	$C_{24}X_{12}$	7782-42-5	18.6%
Copper	Cu	7440-50-8	7.8%
Polyethylene	$(C_2H_4)_n$	9002-88-4	2.3%
Lithium Hexafluorophosphate	$LiPF_6$	21324-40-3	15.0%
Lead	Pb	7439-92-1	Not Detected
Cadmium	Cd	7440-43-9	Not Detected
Mercury	Hg	7439-97-36	Not Detected

SECTION 4 - FIRST AID MEASURES

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

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

Inhalation Exposure:
If inhaled the internals of battery vomiting. Seeking Immediate medical attention.

Ingestion Exposure:
If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

SECTION 5 - FIRE FIGHTING MEASURES

Danger characteristic:
Exposure to excessive heat can cause venting of the liquid electrolyte.
Battery may burst and release hazardous decomposition products when exposed to a fire situation.

Hazardous combustion products
Corrosive and toxic gas may be emitted during fire.

Fire-Fighting method:
The staff must equip with filtermask (full mask) or isolated breathing apparatus.
The staff must wear the clothes which can defense the fire in the upwind direction.
Remove the container to the open space as soon as possible.
Spray water on the containers in the fireplace to keep them cool until finish extinguishment.

Fire-Fighting media:
Plenty of water, dry chemical powder or carbon dioxide.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Emergency treatment:
If the battery material is released, remove personnel from area until the batteries cool down and fumes dissipate.
Provide maximum ventilation to clear out hazardous gases and avoid skin and eye contact or inhalation of vapors.
Remove spilled liquid with absorbent and incinerate waste.

SECTION 7 - HANDLING AND STORAGE

Handling:

1. Do not allow battery terminates to contact each other, or contact with other metals.
2. Do not put the cell or battery into a fire or heat it. Do not solder the cell directly. Do not use or leave the cell or battery in a place near fire or heaters.
3. Do not expose the battery to excessive physical shock or vibration.
4. Do not immerse, throw, and wet a battery in water.
5. Short-circuiting should be avoided. Short circuit will reduce the life of the battery and can lead to ignition of surrounding materials. Physical contact with to short- circuited battery can cause skin burn.
6. The batteries 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.
7. Place the cell beyond the child packing and container.
8. Do not connect the battery directly to an electric outlet or cigarette socket in a car.
9. Be sure to use the specified charger for battery, and follow the charging instructions correctly.
10. Do not mix old and new batteries together, neither with Ni-Cd, dry batteries or another manufacturer batteries

or product.

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.
2. Keep the sample in the cool, dry and well-ventilated place (temperature: -20~30 ºC, humidity: 45~85%). Do not exposure to direct sunlight for long periods. Keep away from fire and heating sources. Don't keep the samples with oxidizer and acid.
3. Equip with relevant types and quantities of the extinguishment instruments. The storage place should be equipped with suitable shelter materials for divulgence handling.
4. For rechargeable battery, charge the battery every 6 months to the amount specified by the manufacture, even if the battery is not used.

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

Engineering Control:
Keep away from heat and open flame. Supply with sufficient partial air exhaust. Store in a cool, dry place.

Respiratory Protection:
Not necessary under conditions of normal use. Wear self-contained breathing filtermask if the density exceed in the air. Wear breathing apparatus under the condition of emergency rescue or evacuation.

Eyes Protection:
Not necessary under conditions of normal use. Wear protective glasses if handling a leaking or ruptured battery.

Skin and Body Protection:
Not necessary under conditions of normal use. Wear fireproofing, gas defense clothes in case of handling a leaking or ruptured battery.

Hands Protection:
Not necessary under conditions of normal use. Wear chemical resistant rubber glove.

Other Protections:
No smoking, dining and drinking water in the workplace. Keep good habit of hygiene.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Black
Physical state:	Solid
Form:	Prismatic
Odor:	Odorless
Solubility:	Insoluble in water

SECTION 10 - STABILITY AND REACTIVITY

Stability:
Stable under normal temperature and pressure.

Distribution of Ban:
Explosives, inflammables, strong oxidants and corrosives.

Conditions to Avoid:
Fire source, heating source, disassemble, external short circuit, crushes, deformation, high temperature above 100°C, direct sunlight and high humidity, immerse in water or overcharge.

Hazardous Polymerization:
Will not occur.

Hazardous Decomposition Products:

Metal oxides, carboxyl compound such as CO, CO_2, etc.

SECTION 11 - TOXICOLOGICAL INFORMATION

Acute Toxicity:

No information is available.

Sub-acute and Chronic Toxicity:

No information is available.

Irritation Data:

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

Sensitization:

The liquid in the battery may cause sensitization to some person.

Mutagenicity:

No information is available.

Carcinogenicity:

Cobalt and Cobalt compounds are considered to be possible human carcinogen(s).

Others:

Since the materials in this battery are sealed in the can, the potential for exposure to the components of the battery is negligible, when the battery is used as directed. However technical or electrical abuse of the battery may result in the release of battery contents.

SECTION 12 - ECOLOGICAL INFORMATION

Eco-toxicity:

No information is available.

Biodegradable:

No information is available.

Mobility in soil:

No information is available.

Bioconcentration or biological accumulation:

No information is available.

Other harmful effects:

Don't abandon the battery into environment, may cause water or soil pollution.

SECTION 13 - DISPOSAL CONSIDERATIONS

Appropriate Method of Substance:

The battery should be completely discharged prior to disposal in order to prevent short circuit.

The battery contains recyclable materials, and it is suggested recycle.

Refer to National or Local regulations before handling.

Disposal of the battery should be performed by permitted, professional disposal firms knowledgeable in National or Local regulations of hazardous waste treatment and hazardous waste transportation.

SECTION 14 - TRANSPORT INFORMATION

The battery has passed the test items of UN Manual of Test and Criteria Section 38.3, and Report No.: FHLD20221028U01.

General packaging requirement:

1. The cells or batteries must be protected so as to prevent short circuits.
2. The cells or batteries or equipment must be packed in suitable strong outer packaging.
3. If batteries contained in equipment, equipment must be secured against movement within the outer packaging and be packed so as to prevent accidental activation.

Air transportation, according to IATA-DGR 64th Edition (Effective 1 January-31December 2023)	
UN Number + PSN	**UN 3480, LITHIUM ION BATTERIES**
Hazard Class	Class 9
Packaging requirement	Strong package, packaging according to PACKING INSTRUCTION 965, section IB
UN Number + PSN	**UN 3481, LITHIUM ION BATTERIES PACKED WITH EQUIPMENT, or UN 3481, LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT**
Hazard Class	Not restricted
Packaging requirement	Strong package, packaging according to PACKING INSTRUCTION 966-967, section II
Sea transportation, according to IMO IMDG Code (Amend 40-2020)	
UN Number + PSN	**UN 3480, LITHIUM ION BATTERIES, or UN 3481, LITHIUM ION BATTERIES PACKED WITH EQUIPMENT, or UN 3481, LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT**
Hazard Class	Not restricted, according to sp188
Package instruction	Strong package, Packaging in accordance to corresponding requirements of sp188
EmS No.	F-A, S-I

SECTION 15 - REGULATORY INFORMATION

Dangerous Goods Regulation (DGR)
Recommendations on the Transport of Dangerous Goods Model Regulations
International Maritime Dangerous Goods (IMDG)
Occupational Safety and Health Act (OSHA)
Toxic Substances Control Act (TSCA)
Code of Federal Regulations (CFR)
Technical Instructions for the Safe Transport of Dangerous Goods
California Proposition 65
Superfund Amendments and Reauthorization Act Title III (302/311/312/313) (SARA)
Globally Harmonized System of Classification and Labeling of Chemicals(GHS)
In accordance with all Federal, State and local laws.

SECTION 16 - ADDITIONAL INFORMATION

According standard:

GB/T 16483-2008 Safety data sheet for chemical products Content and order of sections
ISO 11014:2009(E) Safety data sheet for chemical products – Content and order of sections

Editing date:

2023-01-06

Department:

Guangzhou MCM Certification & Testing Co., Ltd.
Building 2 No. 45 Zhong Er Section of Shiguang Road, Zhongcun Street, Panyu District, Guangzhou City, Guangdong Province, China.
Tel.:+86-20-3477 7662或0086-020-3477 7662
WEB: https://www.mcmtek.com
Email: service@mcmtek.com

Other Information:

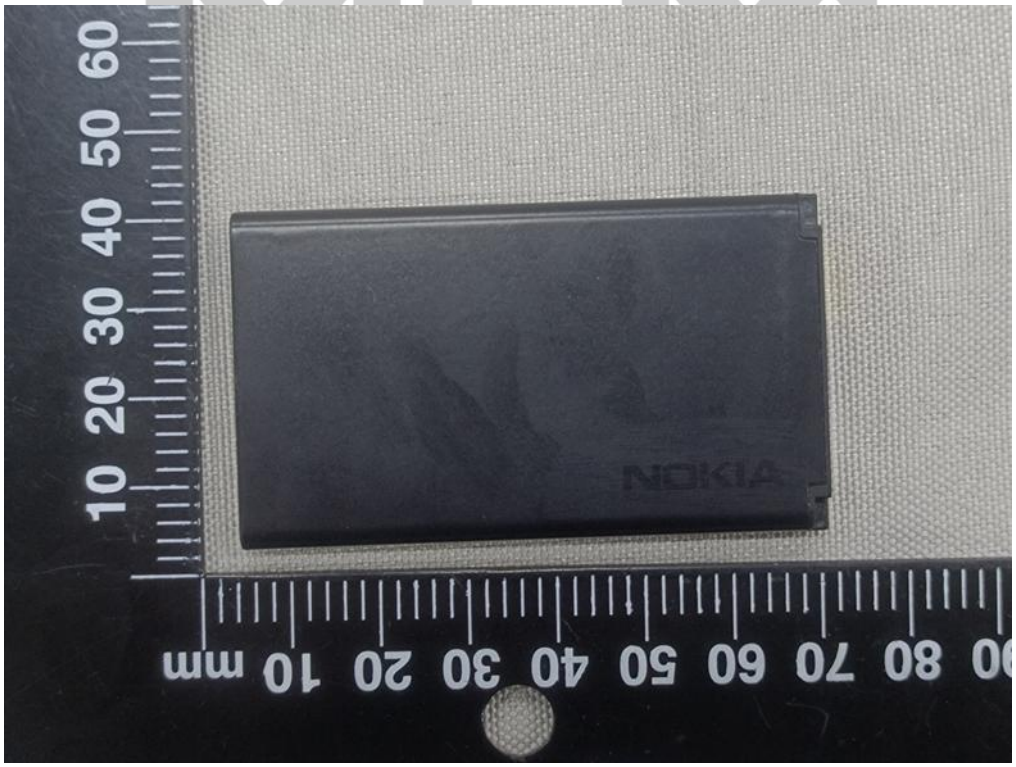
The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. We make no warranty of merchantability or any other warranty express or implied, with respect to such information, and we assume no liability resulting from its use. Users should 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 damage of any third party or for last profits or any special, indirect, consequential or exemplary damages arising from using the above information.

MCM Technology & Service

Sample Reference Photo

Model: BL-L5H





--End of the report--