

Date: November 2025

SKF MPT states that this **Safety Data Sheet & UN38.3 test report** pertains to the batteries included in the following designations:

TLSD1-BAT C



SKF MPT (Maintenance Products, Power Transmission, Tools & Equipment)

Visiting address: Meidoornkade 14, 3992 AE Houten

Delivery address: Peppelkade 68, 3992 AK Houten

Mailing address: P.O. Box 2350, 3430 DT Nieuwegein The Netherlands

www.mapro.skf.com

MATERIAL SAFETY DATA SHEET

Date : Jan 1st, 2021
File No.: PH-W5-108

1. Identification of the substance/preparation and of the company/undertaking

Identification of the product

Product name : Lithium Metal Battery
Chemical System: Lithium and Iron Sulfide (Li-FeS_x battery)
Model: LFBAA/FR14505 1,5V 2900mAh
Designated for 'DO NOT RECHARGE'? Yes No

Manufacturer/supplier identification

Company : Guangzhou Great Power Energy & Technology Co., Ltd.
Contact for information : 912 Xicun Section, Shiliang Road, Shawan, Panyu, Guangzhou, GD, PRC
Emergency telephone No. : 0086-20-39196888

2. Composition/information on ingredients

Ingredient	Percent	CAS Index No./EC No.	Molar mass	Molecular formula	Symbol
Iron Sulfide Compound	30.6%	1317-37-9		FeS _x	
Lithium	6.4%	7439-93-2		Li	
Organic Solvent	14.8%	N/A			
Lithium Salt	1.9%	63676-96-0			
Polypropylene	2.5%	9003-07-0			
Steel	35.7%	7439-89-6		Fe	
Aluminum	8.1%	7429-90-5		Al	

Remark: The weight of metallic lithium per cell is <1.0g.

3. Hazards identification

Routes of Entry:

Inhalation - Yes
Skin - Yes
Ingestion - Yes



Health Hazards (Acute and Chronic):

These chemicals are contained in a sealed can. Risk of exposure occurs only if the battery is mechanically or electrically abused. The most likely risk is an acute exposure when the gas release vent works. Organic solvent has slight toxicity and can irritate skin and eyes. Lithium salt is irritating to skin, eyes and mucous membranes and should be avoided.

Carcinogenicity:

NTP: None IARC Monograph: None OSHA Regulated: None

Medical Conditions Generally Aggravated by Exposure:

An acute exposure will not generally aggravate any medical condition.

4. First aid measures

After skin contact :	In case of skin contact with contents of battery, flush immediately with water. If irritation persists, get medical help.
After eye contact :	For eye contact, flush with copious amounts of water for 15 minutes. Do not inhale leaked material. If irritation persists, get medical help.

5. Fire-fighting measures

Extinguishing Media: CO₂ or dry chemicals
Flammable Limits: Not available

6. Accidental release measures

The preferred response is to leave the area and allow the batteries to cool and the vapors to dissipate. Avoid skin and eye contact or inhalation of vapors. Remove spilled liquid with absorbent and incinerate.

7. Handling and storage

Avoid mechanical or electrical abuse. Batteries may explode or cause burns, if disassembled, crushed or exposed to fire or high temperatures. Do not short or install with incorrect polarity.

8. Exposure controls/personal protection

Specific control parameter :
Personal protective equipment :

Respiratory protection (Specify Type) :	Not necessary under conditions of normal use.
Ventilation:	Not necessary under conditions of normal use.
Protective Gloves:	Not necessary under conditions of normal use.
Eye protection:	Not necessary under conditions of normal use.
Other Protective (Clothing or Equipment):	Not necessary under conditions of normal use.

9. Physical and chemical properties

Specific Gravity: (H20=1): Li: 0.388

Melting Point: (°C): Li decomposes at 180.5 deg. C

FeS₂ is a brass-colored, odorless powder.

Lithium is a soft, silvery metal.

Organic solvent is an odorless, colorless or light yellow liquid.

Lithium salt is a white, crystalline and odorless powder.

10. Stability and reactivity

Stability: Stable

Conditions to Avoid: Do not heat, disassemble or charge.

Hazardous Decomposition or By-products: N/A

Hazardous polymerization will not occur.

11. Toxicological information

Acute toxicity :

Organic solvent

Further toxicological information :

Lithium

12. Ecological information

Ecotoxic effects : N/A

Further ecological data : N/A

13. Disposal considerations

GREAT POWER encourages battery recycling. Our Li-FeS_x batteries are recyclable through the Rechargeable Battery Recycling Corporation's (RBRC) *Charge Up to Recycle! Program*. For information call

1-800-8-BATTERY or see their website at www.rbc.org. Li-FeSx batteries must be handled in accordance with all applicable state and federal laws and regulations.

DO NOT RECHARGE, disassemble, short, or subject battery cells to temperatures in excess of 212 F. Do not use in combination with fresh and used lithium batteries neither with other type of battery.

14. Transport information

International transport regulations :
1. International Air Transport Association (IATA) pursuant to Packing Instruction 968,969 or 970, Section II
2. International Maritime Dangerous Goods Code, IMDG 39-18
3. U.S. hazardous materials regulations pursuant to 49 CFR 173.185 and Special Provision SP188.
UN-No.: 3090 and 3091
IATA Packaging Instruction: Packing Instruction 968,969 or 970 Section II

Great Power Li-FeSx cells pass the tests defined in UN model regulation section 38.3. Cells and batteries are packed according to the requirement of 62nd Edition of the IATA Dangerous Goods Regulations (DGR).

If Great Power Li-FeSx cells are used to construct battery packs, the assembler of that pack is responsible to ensure the battery has been tested in accordance with the requirements contained in the UN Model Regulations, Manual of Test and Criteria. Part III, subsection 38.3.

15. Regulatory information

N/A



16. Other information

Make people : Professional post : R&D Engineer Name(sign) : Jack Lee
Make unit : Name : R&D Department Phone : 0086-20-39196888
Address : R&D Dept., Panyu Plant.,
Date of issue : 2021/01/01

DISCLAIMER : **The information and recommendations set forth are made in good faith and believed to be accurate as of the date of preparation. Guangzhou Great Power Energy & Technology Co.,Ltd makes no warranty, expressed or implied, with respect to this information and disclaims all liabilities from reliance on it.**





中国认可
国际互认
检测
TESTING
CNAS L0095

Page 1 of 14 Pages

No.: RZUN2024-4220

检测报告 TEST REPORT

UN38.3

NAME OF SAMPLE: Lithium and Iron Disulfide Battery
产品名称: 锂电池

CLASSIFICATION OF TEST: Commission Test
检测类别: 委托测试

威凯检测技术有限公司
CVC Testing Technology Co., Ltd.

检测报告

TEST REPORT

Ref. No.: RZUN2024-4220

Page 2 of 14 Pages

Name of samples: Lithium and Iron Disulfide Battery 样品名称: 锂铁电池	Type/Model: 型号规格: LFB-AA, FR6 4.5V 2900mAh
Color: Blue 样品颜色: 蓝色	Physical shape: Irregular shape 样品形状: 不规则形状
Classification of test: Commission Test 检测类别: 委托测试	Quantity of sample: 8 battery packs, 20 Cells 样品数量: 8 个电池组, 20 个电芯
Tested according to: 测试标准: ST/SG/AC.10/11/Rev.8/ Section 38.3	Sample identification: 样品标识序号: b1#~b8#, c1#~c20#
Receiving date: 接样日期: 2024-06-28	Means of receiving: Submitted by Commissioner 接样方式: 委托单位送样
Completing date: 完成日期: 2024-07-19	Test item: 7 items 测试项目: 7 项
<p>Test conclusion: 检测结论: The Lithium and Iron Disulfide Batteries submitted are tested according to Section 38.3 of the Eighth revised edition of the Manual of Tests and Criteria (ST/SG/AC.10/11/Rev.8/Section 38.3). The test items are full items. The test results comply with the relevant requirements of the standard. 有限公司送检的锂铁电池, 依据联合国《试验和标准手册》第八修订版第 38.3 节进行检测, 试验为全项目, 试验结果符合标准相关要求。</p> <p style="text-align: right;">Seal of CVC CVC 盖章 Date of issue: 签发日期: 2024-07-23</p>	

Title: Manager
批准人职务: 经理

Approved by: 黄鲲

Reviewed by: 张思瑶

Tested by: 郑飞达

批 准: 黄 鲲

审 核: 张 思 瑶

检 测: 郑 飞 达

Description and illustration of the sample:

样品说明及描述:

The sample's status is good

样品状况良好。

The battery (LFB-AA, FR6) is composed of cells (LFB-AA, FR6), and the connection mode is: 1P3S

电池组 (LFB-AA, FR6) 由电芯 (LFB-AA, FR6) 组成, 连接方式为: 1P3S

Cell Dimensions/电芯尺寸:

Aggregate Lithium content of each battery/ 单个电池组的合计锂含量: 2,94g

Test item 试验项目	Sample No. 样品编号	State 状态	Remark 备注
T.1~T.5	b1#~b4#	in undischarged states 未放电状态	-
	b5#~b8#	in fully discharged states 完全放电状态	-
T.6	c1#~c5#	in undischarged states 未放电状态	-
	c6#~c10#	in fully discharged states 完全放电状态	-
T.8	c11#~c20#	in fully discharged states 完全放电状态	-

The test objects of T.1~T.5 are battery packs, and the sample numbers are b1#~b8#

T.1~T.5 的测试对象为电池组, 样品编号为 b1#~b8#.

The test objects of T.6 and T.8 are component cells, and the sample numbers are c1#~c20#

T.6、T.8 的测试对象为组成电芯, 样品编号为 c1#~c20#.

Description of the sampling procedure:

取样程序的说明:

/

Description of the deviation from the standard, if any:

试验结果不符合标准项的说明:

/

Remarks:

备注:

Throughout this report a comma is used as the decimal separator.

本报告中以逗号代替小数点。