

Date: November 2025

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

TLRD 150 – TLRD 250



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

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1. Product and Company identification

Product Category: Lithium Manganese Dioxide Primary Battery, Non rechargeable

Nominal voltage: 6V

Product name: P-613B (Lithium 1.02 g)

Battery Supplier's Name: Huizhou Huiderui Lithium Battery Technology Co, Ltd

Battery Supplier's Address: Zhongkai Hi Tech Development Zone, Huihou, Guangdong 516029, China

Contact: Tel 0752-2652536; email: liuzq@huiderui.com; web: huiderui.com

Note:

The battery is neither substance nor mixture but product and having no risk to life and health under normal use or transportation because ingredients of battery is not leaked out by virtue of hermetical sealing with metal case. This sheet notifies possible risk of our battery under abnormal use but mainly aim to provide information about ingredients, notification of handling and transportation regulations as a useful reference.

2. Hazards identification

GHS Classification: Not applicable

Toxicity : Vapor generated from burning batteries, may irritate eyes, skin and throat

Hazard : Electrolyte and lithium metal are inflammable.

Risk of explosion by fire if batteries are disposed in fire or heated above 100°C.

Stacking or jumbling batteries may cause external short circuits, heat generation, fire or explosion

3. Composition/ information on Ingredients

Component	Material	CAS No.	Contents
Positive electrode	Manganese Dioxide	1313-13-9	20-35wt%
Negative electrode	Lithium metal	7439-93-2	1-3wt%
Electrolyte	Mixture of organic solvent	-	10-12 wt%
	Aluminum(Al)	7429-90-5	4-5wt%
Others (Steel or Plastic parts)	Polypropylene	9003-07-0	0.2-0.5wt%
	ABS	9003-56-9	10-15wt%
	Fe	7439-89-6	20-30wt%

4. First-aid measures

Inhalation	If ingredient leaked out from inside of a battery and if inhaled it, move to a place where fresh air is provided. Refer for medical attention.
Skin contact	If ingredient leaked out from inside of a battery and stuck on skin, wash the contact areas off immediately with plenty of water and soap. If appropriate procedures are not taken, this may cause sores on the skin. Refer for medical attention.
Eyes contact	If ingredient leaked out from inside of a battery and came into eyes, flush the eyes with plenty of water for at least 15 minutes immediately without rubbing. Take a medical treatment. If appropriate procedures are not taken, this may cause an eye irritation.
Swallowing	In case of swallowing of battery, immediately refer for medical attention.

5. Fire-fighting measures

Fire extinguishing agent:

Dry chemical, alcohol-resistant foam, powder, atomized water; carbon dioxide and dry sand are effective.

Extinguishing method:

Escape batteries to safe place prevent from ignition by spreading fire. Because packaging material of battery is paper, use water extinguisher, CO2 extinguisher or powder extinguisher as normal extinguisher.

Since vapor, generated from burning batteries may make eyes, nose and throat irritate, be sure to extinguish the fire on the windward side. Wear the respiratory protection equipment in some cases.

6. Accidental release measures

Chemical contents are sealed in metal can. But if the battery is mechanically or electrically abused, contents may leak out. In such case, take action as showing below.

Personal precautions: Temporary inhalation of odor and attaching of electrolyte to skin does not cause serious health hazard. Be sure the ventilation and washing out of electrolyte quickly.

Environmental precautions: Clean up it quickly. Specific environmental precaution is not necessary.

Method and materials for containment and methods and materials for cleaning up:

Contain and collect spillage and place in container for disposal according to local regulations.

7. Handling and storing

Do not charge, short-circuit, disassemble, deform, heat above 100 °C or incinerate.

Do not pile up or mingle batteries with each other. Handling Do not place battery on metal case, metal plate or antistatic material.

In case of multi cell application, replace all batteries to new at once when replacing used batteries.

Be sure to store batteries in well-ventilated, dry and cool conditions.

Keep away from water, rain, snow, frost or dew condensation.

Do not store batteries near source of heat or nozzle of hot air.

Storage Do not store batteries in direct sunshine.

Take care not to get wet packing by dew condensation when packing is removed from cold to warm and humid condition.

Enough number of fire fighting apparatuses should be installed in warehouse.

8. Exposure controls and personal protection

There is no need of personal protective equipment on regular handling and storage. In the event, however, a large amount of electrolyte should be released by mechanical or electrical abuse, use the protections as shown below

Respiratory protection : Mask (with a filter preferably)

Hand protection : Synthetic rubber gloves

Eye protection : Goggles or glasses

9. Physical and chemical properties

State : Solid

Shape : Cylindrica

10. Stability and reactivity

Stability: Stable on regular handling

Conditions to avoid: External short circuit of battery, deformation by crush, exposure at high temperature of more than 100 degree C (may cause heat generation and ignition), direct sunlight, high humidity

Materials to avoid: Substances that cause short circuit

11. Toxicological information

Since chemicals are contained in a sealed can, there are no hazards.

Toxicological information of main components of battery is shown below as reference.

Manganese Dioxide

Acute toxicity: rabbit *1: LDLO (blue pipe) = 45mg/kg, mouse *2:LD50 (subcutaneous) = 422mg/kg

Local effects: Stimulus to an eye, a nose, a throat, and a skin

Chronic toxicity or long-term toxicity: Inhalation of powder dust or fume for a long time (at least 3 months) may cause specific central nerve symptom like Parkinson's disease.

Reproduction toxicity: Mouse*3 inhalation TCL0=49mg/m3

Lithium metal

Acute toxicity: No information in a metal state

Local effects: Touching on a skin or an eye causes thermal burn and alkaline chemical burn.

Electrolyte

Acute toxicity: No information at present

Local effects: Slight stimulus to an eye

12. Ecological information

Persistence and degradability	No information available
Mobility in soil	No information available

13. Disposal considerations

Dispose of batteries in accordance with applicable federal, state and local regulations.

For safety precaution, battery should be insulated in proper manner; covering both terminals by tape, wrapping of battery in insulative bag or packing battery in original package is recommended in order to prevent ignition or explosion due to short-circuit

14. Transportation Information

During the transportation of a large amount of batteries by ship, trailer or railway, do not leave them in the places of high temperatures and do not allow them to be exposed to condensation.

During the transportation do not allow packages to be dropped or damaged.

UN Number: UN3090

UN3091 (When cell/batteries contained in equipment / packed with equipment, it is UN3091)

: Even though the cells are classified as lithium metal batteries (UN3090 or 3091),

they are exempted from Dangerous Goods because they meet the following:

1. For cells, the lithium content is not more than 1g; For batteries, the lithium content is not more than 2g;
2. Each cell is of the type proven to meet the requirements of each test in the UN Manual of Tests and Criteria, Part III, sub-section 38.3.
3. Each cell is manufactured in ISO9001 certified factory.

Proper shipping Name: Lithium metal batteries

UN Class: Class 9

Please refer to the following reference information about concrete ways of transportation. Actual content of packaging label and shipping documents varies by shipping companies. Make sure to confirm in advance with your shipping company.

Information of reference

	Reference (Reference number)	UN Number	Packing Instruction(PI)/ Special provision(SP)	Note
Air transport	IATA DGR	UN3090	PI 968 Section IA	Batteries Cargo Aircraft only; Net quantity per package Max. 35kg
			PI 968 Section IB	Batteries, Cargo Aircraft only; net quantity per package Max. 2.5kg
		UN3091	PI 969 Section	Batteries packed with equipment
			PI 970 Section	Batteries contained in equipment
Marine transport	IMDG Code	UN3090	SP 188	
		UN3091		

15. Regulatory information

- IATA Dangerous Goods Regulations 66th Edition, 2025 (IATA DGR)
- IMO International Maritime Dangerous Goods Code 2022 Edition (IMDG Code)
- UN Recommendations on the Transportation of Dangerous Goods, Model Regulations
- UN Recommendations on the Transportation of Dangerous Goods, Manual of Tests and Criteria
- EU Battery Directive (EU) 2023/1542
- Regulation (EC) No. 1907/2006 on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH)
- State of California Regulations - Best management practices for Perchlorate Materials.

16. Other information

This SDS is provided to customers as reference information in order to handle batteries safely.

It is necessary for the customer to take appropriate measures depending on the actual situation such as the individual handling, based on this information.



UN38.3 试验概要 UN38.3 Test Summary



单位信息 Company information			
委托单位 Consignor	惠州市惠德瑞锂电科技股份有限公司 Huizhou Huiderei Lithium Battery Technology Co., Ltd 广东省惠州市仲恺高新区陈江街道兴业大道4号 No. 4, Xingye Avenue, Chenjiang, Zhongkai Hi-Tech Development Zone, Huizhou, Guangdong 516029, China. 0752-2652536 liuzq@huiderei.com www.huiderei.com		
生产单位 Manufacturer	惠州市惠德瑞锂电科技股份有限公司 Huizhou Huiderei Lithium Battery Technology Co., Ltd 广东省惠州市仲恺高新区陈江街道兴业大道4号 No. 4, Xingye Avenue, Chenjiang, Zhongkai Hi-Tech Development Zone, Huizhou, Guangdong 516029, China. 0752-2652536 liuzq@huiderei.com www.huiderei.com		
测试单位 Test lab	上海化工院检测有限公司 Shanghai Institute of Chemical Industry Testing Co., Ltd. 中国.上海.普陀区云岭东路345号, 200062 No.345 East Yunling Road, Putuo, Shanghai, China 200062 86-21-31765555 battery@ghs.cn www.ghs.cn		
电池信息 Battery information			
名称 Name	锂离子电池 Lithium Manganese Dioxide Battery	品牌 Brand	Easylube
型号 Type	CR-P2 (P-613B)	原始测试型号 Original tested type	CR-P2 (P-613A)
标称电压(V) Nominal voltage	6.0	容量/能量 Capacity/energy	1600mAh
描述 Description	不可充电锂金属电池组 Primary Li-metal battery	锂含量(g) Li content	1.02
质量(kg) Mass	0.0392	外观 Appearance	黑色, 灰色双色塑胶外壳 Black and gray plastics cement shell
测试信息 Test information			
原报告编号 Original test report No.	1125040649	测试报告日期 Date of test report	2025-05-22
测试标准 Test standard	联合国《试验和标准手册》第38.3章 UNITED NATIONS Manual of Tests and Criteria 38.3 ST/SG/AC.10/11/Rev.8		
T.1 高度模拟 Altitude simulation	合格 Passed	T.2 温度测试 Thermal test	合格 Passed
T.3 振动测试 Vibration	合格 Passed	T.4 冲击测试 Shock	合格 Passed
T.5 外部短路 External short circuit	合格 Passed	T.6 挤压 Crush	合格 Passed
T.7 过度充电 Overcharge	/	T.8 强制放电 Forced discharge	合格 Passed
38.3.3 (f)	/	38.3.3 (g)	/



声 明

Statement

1. 试验概要无本实验室公章（或检验检测专用章）无效。

The test summary is invalid if it is not affixed the official seal of the laboratory to it.

2. 试验概要复印件无效。

Copies of the test summary are invalid.

3. 试验概要无签字及签字者姓名和职务无效。

The test summary is invalid without the signature, name and title of the signatory.

4. 试验概要涂改无效。

The test summary is invalid if it is blotted out.

5. 未经本实验室书面批准，不得部分复制试验概要。

It is forbidden to copy the test summary partially without the written approval of the laboratory.

6. 试验概要中描述的检测结果，仅对所测样品有效。

The conclusion of the test summary is only valid for the tested sample.

7. 试验概要以中文为准，英文文本（如有）仅为译文，两者发生冲突时，应以中文文本为准。

The test summary has been drafted in Chinese and translated into English (if exist) for convenience only. In the event of discrepancy, the Chinese version shall prevail.

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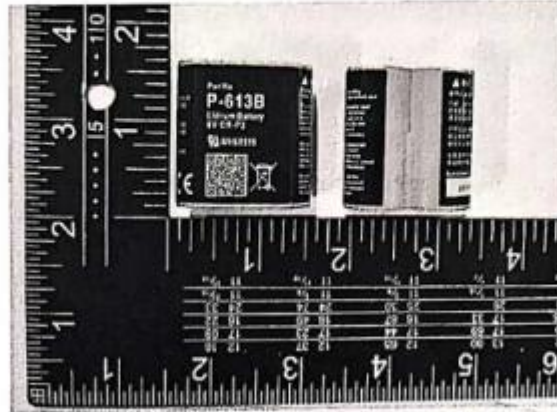
电子信箱(E-mail): battery@ghs.cn



UN38.3 试验概要 UN38.3 Test Summary



样品图片 Sample Picture



结论 Conclusion	测试样品符合联合国《试验和标准手册》ST/SG/AC.10/11/Rev.8 38.3 标准要求。The tested samples meet the requirements of test items of the UNITED NATIONS Manual of Tests and Criteria ST/SG/AC.10/11/Rev.8 38.3	
备注 Remark	无。None.	
签名 Signature 职务 Title	 王寅 副总工程师 Vice chief engineer	签发日期 Issued date 2025-06-12

-验证码:907327-
报告结束