

PRODUCT SAFETY DATA SHEET



The batteries are exempt articles and are not subject to the OSHA Hazard Communication Standard Requirement. This sheet is only provided as technical information and is referred normal use of the product in question. NANFU makes no warranty expressed or implied.

Section 1-Product and Company Identification

Product Name: Li-MnO ₂ button cell		Date of preparation	Jan. 1, 2022
Brand:南孚、传应、NANFU、EXCELL、NECTIUM			
Nominal Voltage	3.0 V	Designations	Sizes All
Company: Shenzhen Jingfu Technology Co., Ltd Supplier : Fujian Nanping Nanfu Battery Co., Ltd.		Telephone Numbers: +86 599 400 8873599	
Address: 109 Industry Road, Nanping, Fujian, P.R.C., 353000		Fax Numbers: +86 599 8735117	

Section 2-Composition/Information on Ingredients

Ingredient	CAS#	Content(wt%)
Manganese Dioxide	1313-13-9	15 to 40
Propylene Carbonate	108-32-7	2 to 6
1,2-Dimethoxyethane	110-71-4	1 to 5
Lithium Perchlorate	7791-03-9	0 to 1.5
Lithium or Lithium Alloy	7439-93-2	1 to 5
Graphite	7782-42-5	1 to 4

*) Lithium content for each cell

Model	Li content(g)	Model	Li content(g)
CR2016	0.025	CR2032	0.065
CR2025	0.048	CR2430	0.090
CR1632	0.038	CR2450	0.165
CR1620	0.030	CR1220	0.012

CR1616	0.016		
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Section 3–Hazards Identification

This contains lithium, organic solvent, and other combustible materials. For this reason, improper handling of the battery could lead to distortion, leakage*, overheating, explosion, or fire and cause human injury or equipment trouble. Please strictly observe safety instructions.

(*leakage is defined as an unintended escape of liquid from a battery.)

Section 4–First Aid Measures

None unless internal materials exposure. If contents are leaked out, observe following instructions

- Inhalation** Fumes can cause respiratory irritation. Remove to fresh air and consult a physician.
- Skin** Immediately flush skin with plenty of water. If itch or irritation by chemical burn persists, consult a physician.
- Eyes** Immediately flush eye with plenty of water for at least 15 minutes. Consult a physician immediately
- Ingestion** If swallowing a battery, consult a physician immediately.
If contents come into mouth, immediately rinse by plenty of water and consult a physician.

Section 5–Fire Fighting Measures

- Extinguishing Media** Extinguisher of alkaline metal fire is effective.
Plenty of cold water is also effective to cool the surrounding area and control the spread fire. But hydrogen gas may be evolved by the

reaction of water and lithium and it can form an explosive mixture. Therefore in the case that lots of lithium batteries are burning in a confined space, use a smothering agent.

Fire fighting procedure Use self-contained breathing apparatus and full protective gear not to inhale harmful gas.

Section 6-Accidental Release Measures

NA

Section 7-Handling and Storage

1) Handling

Never swallow. Never charge. Never hear. Never expose to open flame. Never disassemble. Never reverse the positive and negative terminals when mounting. Never short-circuit the battery. Never weld the terminal or wire to the body of the battery directly. Never use different batteries together. Never touch the liquid leaked out of battery. Never bring fire close to battery liquid. Never keep in touch with battery.

2) Storage

Never let the battery contact with water. Never store the battery in hot and high humid place.

Section 8-Exposure Controls, Personal Protection

Respiratory Protection	NA	
Ventilation	Local Exhaust	NA
	Mechanical	NA
	Special	NA
	Other	NA
Eye Protection	NA	
Protective Glove	NA	
Other protective clothing	NA	

			section IB
International	Marine	IMO	SP188
U.S.A	Air, Rail, Road, Marine	DOT	49 CFR Section 173.185

Their regulations are based on the UN Recommendations. Each special provision provides specifications on exceptions and packaging for lithium metal batteries shipping. The products can be transported as “Non Dangerous Goods” when they meet the requirements of packing instruction 968 Section IB of IATA–DGR(62th Edition)or SP188 of IMDG Code (Amdt. 39–18) 2018 Edition.

Section 15–Regulatory Information

Major applicable regulations for the transportation of lithium metal cells and batteries are as follows:

- UN Model Regulations: United Nations ST/SG/AC.10/11/Rev.6/Amend.1/Section 38.3, Recommendations on the Transport of Dangerous Goods
- International Civil Aviation Organization(ICAO):Technical instructions for the Safe Transport of Dangerous Goods by Air, 2016 edition
- International Air Transport Association(IATA): Dangerous Goods Regulations, 62th Edition
- International Maritime Organization(IMO): International Maritime Dangerous Goods(IMDG) Code,(Amdt. 39–18) 2018 Edition

Section 16–Other Information

If you want further information, please contact NANFU sales representative