

SHENZHEN GAONENGDA BATTERY CO., LTD

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Material Safety Data Sheet

Product: Lithium Dioxide Manganese Primary Battery

Date: 2012-01-05

File No. :GLD2012-MSDS-EN01

1. Identification.

- 1.1** Product Name: Lithium Manganese Dioxide Button Cell
Model: CR2025 Lithium coin cells
Voltage: 3.0 Volts
Chemistry System: Lithium Dioxide Manganese Primary
Designated for Recharge: NO
Anode: Lithium Metal
Cathode: Liquid, dioxide manganese, Carbon
- 1.2** Company: SHENZHEN GAONENGDA BATTERY CO., LTD
No.28,Changjin Road,Changjiangpu Industrial Zone,
He'ao,Henggang town, Shenzhen'China
Telephone +86-755-28626181 Fax: +86-755-28625176
- 1.3** Emergency Telephone Number: +86-755-28626184



2. Composition/Information on Ingredients

Substance	CAS No.	Approximate percent Of total weight	Hazard symbol	R-phrases
Lithium Metal	7439-93-2	2-6	F,C	14/15-34
Dioxide manganese	7719-09-7	18-47	C	14-34-37
Aluminium	7446-70-0	2 – 5		
Carbon	7440-44-0	2 – 5		
Steel, Nickel Plated	----	35 –73		
Glass	----	0 – 2		
PVC	9002-86-2	0 – 1		
PMMA	9011-14-7	0 – 1		
PTFE	9002-84-0	0 – 1		

- Hazard Symbols: C Corrosive
F Highly flammable
- R-Phrases: R 14 Reacts violently with water
R 14/15 Reacts violently with water liberating extremely flammable gases
R 34 Causes burns
R 37 Irritation to respiratory system

Important Note: The material in this section may only represent a hazard if the integrity of

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5. Fire- fighting measures

A. Extinguishing Media

- Copious amounts of cold water is an effective extinguishing medium for lithium batteries.
- Do not use warm water or hot water.
- lith-X(Class D extinguishing media) is effective on fires involving only a few lithium batteries.
- Do not use CO₂ or Halon type extinguishers.
- Dry chemical type extinguishers have limited extinguishing potential

B. Fire Fighting Procedures

- Use a positive pressure self-contained breathing apparatus if batteries are involved in a fire.
- Full protective clothing is necessary.
- During water application caution is advised as burning pieces of lithium may be ejected from the fire.

6. Accidental release measures

When the battery housing is damaged, small amounts of electrolyte may leak. Seal battery air Tight in a plastic bag. Adding some chalk(CaCO₃) or lime (CaO) powder or Vermiculite. electrolyte traces may be wiped off dryly using household paper. rinse with water afterwards.

7. Handling and storage

- Do not allow terminals to short-circuit.
- Storage preferably in a cool(below 21 °C), dry area that is subject to little temperature change.
- Do not place near heating equipment, nor expose to direct sunlight for long periods. Elevated temperatures can result in reduced battery service life.

8. Exposure controls/ personal protection

Not applicable

9. Physical and chemical properties

Not applicable

10 Stability and reactivity

May rupture violently when heated above 150 °C or when charged.

11. Toxicological information

Not applicable

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Refer to information under item 2.

12. Ecological information

The Batteries do not contain mercury, cadmium or other heavy metals.

13. Disposal Consideration

- Dispose by incineration or burial at permitted waste treatment and/or disposal sites.
- Batteries do not contain hazardous materials according to EC directives 2006/66/EC.
- For large quantities a disposal service is offered upon request.

14. Transport information

GLD Lithium batteries are exempt from dangerous goods regulations and meet the exceptions of 49CFR Part 173.185(b). They are considered non-dangerous goods by the International Civil Aviation Organization (ICAO) and the International Air Transport Association (IATA) because they meet all requirements of Special Provision A154 and can be shipped as “Not Restricted” cargo in accordance with IATA Dangerous Goods Regulations 53rd according to packing instruction 968 General requirements and section II. It is safe to ship by IMDG code SP188/IMO/US DOT.

Separate Lithium batteries when shipping to prevent short-circuiting. They should be packed in strong packaging for support during transport.

Each GLD cell has been tested under provisions of the UN Manual of Tests and Criteria, Part III, Sub-section 38.3.

15. Regulatory information

Not applicable

16. Other information

- Further information is given in
 - GLD Lithium Battery Product Data Catalogue
 - GLD Lithium battery technical Brochure.
- For lithium batteries in general, Safety standard IEC 60086-4 applies. It contains detailed recommendations for manufacturers of equipment and users.
- Visit our website <http://www.gld-battery.com>.

The information contained herein is furnished without warranty of any kind. Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of the suitability and completeness of information from all sources to assure proper use and disposal of the materials and the safety and health of employees and customers.