



新利達電池實業有限公司

NEW LEADER BATTERY INDUSTRY LTD.

香港九龍觀塘開源道 62 號駱駝漆大廈第一期四樓 A 座  
 FLAT A, 4/F., B1K 1, CAMELPAINT BLDG., 62 HOI YUEN ROAD, KWUN TONG, KOWLOON HONG KONG  
 TEL:(852) 2790 6280 FAX:(852) 2763 4104 Website:[www.newleader.com.hk](http://www.newleader.com.hk) E-mail: [sales@newleader.com.hk](mailto:sales@newleader.com.hk)



**Material Safety Data Sheet for LR44 0.% Hg Alkaline Type Button cell**

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IDENTITY (As Used on Label and List)

Note: Blank spaces are not permitted if any item is not applicable or no information is available, the space must be marked to indicate that.

Section I - Information of Manufacturer

Manufacturer's Name New Leader Battery Industry Ltd.,

Emergency Telephone Number 852 27906280

Address (Number, Street, City State, and ZIP Code)

Rm A, 4/F, Block 1, Camelpaint Industrial Building, 62 Hoi Yuen road, Kwun Tong., Hong Kong

Telephone Number for information 852 2790 6280

Signature of Preparer (optional)

Section II - Hazardous Ingredients / Identity Information ( REACH )

Substance name	% or ppm	Chemical Identification		Weight In gm.	Proportion of Product	Is the Substance Pre-registered?
		CAS#	EINECS #			
Zinc	6 – 10%	7440-66-6		0.16		NO
Manganese Dioxide	25 – 30%	1313-13-9		0.55		NO
Graphite	2 – 3%	7782-42-5		0.05		NO
Iron	32 - 37%	7439-89-6		0.69		NO
Potassium Hydroxide	6 - 8%	7646-85-7		0.14		NO
Distilled Water	10 – 12%	7732-18-5		0.22		NO
Lead	<1000 ppm	7439-92-1		0.001		NO
Cadmium	< 100 ppm	7440-43-9		0.0001		NO
* Mercury	< 5 ppm	7439-97-6		<0.000005		NO

\* No intentionally added Mercury

Section III - Physical / Chemical Characteristics

Boiling Point N.A.  
 Specific Gravity (H<sub>2</sub>O=1) N.A.  
 Vapor Pressure (mm Hg) N.A.  
 Melting Point N.A.  
 Vapor Density (AIR=1) N.A.  
 Evaporation Rate (Butyl Acetate) N.A.  
 Solubility in Water N.A.  
 Appearance and Odor button shape, odorless

Section IV - Hazard Classification

Classification N.A.



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Section V – Reactivity Data

Stability Unstable Conditions to Avoid  
Stable Incompatibility (Materials to Avoid)  
Hazardous Decomposition or Byproducts  
When heated, battery may emit hazardous vapour of KOH/NaOH  
Polymerization May Occur  
Conditions to Avoid Will Not Occur

Section VI – Health Hazard Data

Route(s) of Entry  
Inhalation N.A.  
Skin N.A.  
Ingestion N.A.  
Health Hazard (Acute and Chronic) / Toxicological information  
In case of electrolyte leakage, skin will be itchy when contaminated with electrolyte.  
In contact with electrolyte can cause severe irritation and chemical burns.  
Inhalation of electrolyte vapors may cause irritation of the upper respiratory tract and lungs.

Section VII – First Aid Measures

First Aid Procedures If electrolyte leakage occurs and makes contact with skin, wash with plenty of water immediately.  
If electrolyte comes into contact with eyes, wash with copious amounts of water for fifteen (15) minutes, and contact a physician.  
If electrolyte vapors are inhaled, provide fresh air and seek medical attention if respiratory irritation develops. Ventilate the contaminated area.

Section VIII – Fire and Explosion Hazard Data

Flash Point (Method Used) N.A.  
Ignition Temp N.A.  
Flammable Limits N.A.  
LEL N.A.  
UEL N.A.  
Extinguishing Media  
Carbon Dioxide, Dry Chemical or Foam extinguishers  
Special Fire Fighting Procedures N.A.  
Unusual Fire and Explosion Hazards  
Do not dispose of battery in fire - may explode.  
Do not short-circuit battery - may cause burns.



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Section IX – Accidental Release or Spillage

Steps to Be Taken in Case Material is Released or Spilled

Batteries that are leaking should be handled with rubber gloves.

Avoid direct contact with electrolyte.

Wear protective clothing and a positive pressure Self-Contained Breathing Apparatus (SCBA).

Section X – Handling and Storage

Safe handling and storage advice

The battery is extremely sensitive to adverse effects of humidity. Be sure to store them in a place which is dry and subject to little temperature change. Do not place near the boiler or radiator, nor expose to direct sun light. Do not dispose of the battery in fire. Do not charge the battery.

Do not short-circuit the battery. Do not put in backward position. Do not store in disorderly fashion, or allow metal objects to be mixed with stored batteries. Do not disassemble the battery, handling in such manner can cause the battery to explode, leak and injury.

Section XI – Exposure Controls / Person Protection

Occupational Exposure Limits: LTEP	N.A.
STEP	N.A.
Respiratory Protection (Specify Type)	N.A.
Ventilation Local Exhausts	N.A.
Special	N.A.
Mechanical (General)	N.A.
Other	N.A.
Protective Gloves	N.A.
Eye Protection	N.A.
Other Protective Clothing or Equipment	N.A.
Work / Hygienic Practices	N.A.

Section XII – Ecological Information

N.A.

Section XIII – Disposal Method

Dispose of batteries according to government regulations.



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### Section XIV – Transportation Information

NEW LEADER batteries are considered to be “Dry cell” batteries and are unregulated for purposes of transportation by the U.S. Department of Transportation (DOT), International Civil Aviation Administration (ICAO), International Air Transport Association (IATA) and International Maritime Dangerous Goods Regulations (IMDG). The only DOT requirement for shipping these batteries is special provision 130 which states : “Batteries, dry are not subject to the requirements of this subchapter only when they are offered for transportation in a manner that prevents the dangerous evolution of heat (For example, by the effective insulation of exposed terminals). The only requirements for shipping these batteries by ICAO and IATA is Special Provision A123 which states : “An electrical battery or battery powered device having the potential of dangerous evolutions of heat that is not prepared so as to prevent a short-circuit (e.g. in the case of batteries, by the effective insulation of exposed terminals; or in the case of equipment, by disconnection of the battery and protection of exposed terminals) is forbidden from transportation.” The international Maritime Dangerous Goods Code (IMDG) regulate them for ocean transportation under Special Provision 304 which says : Batteries, dry, containing corrosive electrolyte which will not flow out of the battery if the battery case is cracked are not subject to the provision of this Code provided the batteries are securely packed and protected against short-circuits. Example of such batteries are : alkali-manganese, zinc-carbon, nickel metal hydride and nickel-cadmium batteries. Non-dangerous goods. Such battery have been packed in inner packaging in such a manner as to effectively prevent short circuit and movement that could lead to short circuit.

### Section XV – Regulatory Information

Special requirement be according to the local regulatory.

### Section XVI – Other Information

The data in this Material Safety Data Sheet relates only to the specific material designated herein.

### Section XVII – Measures for fire extinction

In case of fire, it is permissible to use any class of extinguishing medium on these batteries or their packing material. Cool exterior of batteries if exposed to fire to prevent rupture. Fire fighters should wear self-contained breathing apparatus.