新利達電池實業有限公司
NEW LEADER BATTERY INDUSTRY LTD.
香港九龍官塘開源道62號駱駝漆大廈第一期四樓A座
FLAT A, 4/F., BLOCK 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 E-mail: sales@newleader.com.hk
QHK 01392

Material Safety Data Sheet for LR6, LR03

PRODUCT NAME : **NEWLEADER BATTERY**

CHEMICAL SYSTEM : CYLINDRICAL ALKALINE ZINC MANGANESE BATTERY

Document Number: QA 23344-2004 Revision:22

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

Manufacturer's Name
New Leader Battery Industry Ltd.,
Emergency Telephone Number 2790 6280
Address (Number, Street, City State, and ZIP Code)
Telephone Number for information
852-2790 6280
Date of prepared and revision
January 01, 2011
Signature of Prepare (optional)

Section II - Hazardous Ingredients / Identity Information

Hazardous Components:
Description: Approximate % of total weight (CAS Registry No.)

Zinc	18.00%	(7440-66-6)
Manganese Power	40.00%	(1313-13-9)
Graphite	4.00%	(7782-42-5)
Potassium Hydroxide	6.00%	(1310-58-3)
Steel iron	28.00%	(7439-89-6)
Distilled Water	4.00%	(7732-18-5)

Section III - Physical / Chemical Characteristics

Boiling Point	N.A.
Specific Gravity (H2O=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
Cylindrical Shape, odorless

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Section IV - Fire and Explosion Hazard Data

Flash Point (Method Used)	N.A.
Flammable Limits	N.A.
LEL	N.A.
UEL	N.A.
Extinguishing Media	N.A.
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.

Section V – Reactivity Data

Stability Unstable
Conditions to Avoid
Stable X
Incompatibility (Materials to Avoid)
Hazardous Decomposition or Byproducts
Hazardous
Polymerization May Occur Conditions to Avoid
Will Not Occur X

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.

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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 – Accidental Release or Spillage

Steps to Be Taken in Case Material is Released or Spilled

Batteries that are leakage should be handled with rubber gloves.

Avoid direct contact with electrolyte.

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

Section IX – Handling and Storage

Safe handling and storage advice

Batteries should be handled and stored carefully to avoid short circuits.

Do not store in disorderly fashion, or allow metal objects to be mixed with stored batteries.

Never disassemble a battery.

Do not breathe cell vapors or touch internal material with bare hands.

Keep batteries between -30°C and 35°C for prolong storage.

Section X – 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.

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Section XI – Ecological Information

N.A.

Section XII – Disposal Method

Dispose of batteries according to government regulations.

Section XIII – Transportation Information

NL 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 A123 which states: "Batteries, dry are not subject example, by the effective insulation of exposed terminals). As of IATA Dangerous Goods Regulations (edition 52th) requires that batteries being transported by air must be protected from short-circuiting and protected from movement that could lead to short-circuiting.

Section XIV – Regulatory Information

Special requirement be according to the local regulations.

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.