



# 新利達電池有限公司 NEW LEADER BATTERY LIMITED.

## Safety Data Sheet for Alkaline Battery LR03,LR06

Document Number: SDS- Alkaline Battery LR03, LR06 Not for Recharge (Version : 2016)

### SECTION I – Identification 生產商資料

Manufacturer's Name 生產商 : New Leader Battery Limited 新利達電池有限公司

Emergency & Information Phone No 緊急和查詢電話 : 852 - 2790 6280

Address : Rm A, 4/F, Block 1, Camelpaint Building, 62 Hoi Yuen Road, Kwun Tong, Kowloon, Hong Kong.

Signature of Prepare (Optional)

### SECTION II – Hazardous Ingredients

#### IMPORTANT NOTE :

Use under normal conditions, the Zinc Manganese alkaline battery is hermetically sealed.

鋅錳鹼性電池在正常使用下是密封的

**Ingestion:** Swallowing a battery can be harmful. Contents of an open battery can cause serious chemical burns of mouth, esophagus, and gastrointestinal tract. **IMMEDIATELY SEE DOCTOR**; Do not induce vomiting or give food or drink.

誤服：吞服電池是有害的,誤服了的電池會導致化學性燒傷,使食道嚴重灼傷,萬一誤服應立即盡快找就近的醫生診斷,不要給誤服者飲食或企圖把誤服之電池吐出

**Inhalation:** Contents of an open battery can cause respiratory irritation.

吸入：吸入了開封的電池會刺激呼吸道

**Skin Contact:** Contents of an open battery can cause skin irritation.

皮膚接觸：接觸了開封的電池會導致皮膚過敏

**Eye Contact:** Contents of an open battery can cause severe irritation.

眼睛接觸：如眼睛不慎接觸了已開封的電池會導致眼睛刺痛

### SECTION III – Composition 成份表

Substance Name 名稱	Chemical Identification CAS# 代號	% Weight
Zinc 鋅	7440 - 66 - 6	8%
Graphite 石墨	7782 - 42 - 5	3%
Manganese Dioxide 二氧化錳	1313 - 13 - 9	30%
Potassium Hydroxide 氫氧化鉀	1310 - 58 - 3	10%
Iron 鐵	7439 - 89 - 6	37%
Distilled Water 純水	7732 - 18 - 5	12%
Others 其他	N/A	0%

Prepared January 2016



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### **SECTION IV – First Aid Measures 急救處理措施**

**Ingestion:** Do not induce vomiting or give food or drink. Seek medical attention immediately. Call National Battery Ingestion Hotline for advice.

誤服：不要給誤服者飲食或企圖把誤服之電池吐出，應立即盡快找就近的醫生診斷，聯絡國際電池熱線尋求意見

**Inhalation:** Provide fresh air and seek medical attention.

吸入：提供新鮮的空氣和盡快找就近的醫生診斷

**Skin Contact:** Remove contaminated clothing and wash skin with soap and water. If a chemical burn occurs or if irritation persists, seek medical attention

皮膚接觸：把受污染的衣物移走和應立即用肥皂水清洗患處

**Eye Contact:** Immediately flush eyes thoroughly with water for at least 15 minutes, lifting upper and lower lids, until no evidence of the chemical remains. Seek medical attention.

眼睛接觸：盡快用清水沖洗 15 分鐘，眨動上下眼皮，直至沒有化學物殘留在眼睛，盡快找就近的醫生診斷

### **SECTION V – Fire-Fighting Measures**

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.

如遇上電池所引發之火警，可用任何認可之滅火器救火和他們的包裝材料，請勿把破裂的電池投入火堆中，滅火時應穿上有自動提供氧氣的滅火衣

### **SECTION VI – Accidental Release Measures 處理意外釋放或溢出之電池**

**Ventilation Requirements:** Room ventilation may be required in areas where there are open or leaking batteries  
通風設備：如發生漏液或破損，應把電池移往室內通風地方

**Eye Protection:** Wear safety glasses with side shields if handling an open or leaking battery

眼部護理：應把已打開或漏液之電池，放入已盛載了水的水杯內

**Gloves:** Use neoprene or natural rubber gloves if handling an open or leaking battery.

Battery materials should be collected in a leak-proof container

手套：已打開或漏液之電池在處理時，應帶上橡膠手套和放入防漏之容器內



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### **SECTION VII – Handling and Storage**

**Storage :** Store in a cool, well ventilated area. Elevated temperatures can result in shortened battery life.

存放：電池應存放在通風及清涼的地方,高溫存放會縮短電池之壽命

**Mechanical Containment:** If potting or sealing the battery in an airtight or watertight container is required, consult your New Leader Battery Limited representative for precautionary suggestions. Batteries normally evolve hydrogen which, when combined with oxygen from the air can produce a combustible or explosive mixture unless vented. If such a mixture is present, short circuits, high temperature, or static sparks can cause an ignition.

Do not obstruct safety release vents on batteries, Encapsulation (potting) of batteries will not allow cell venting and can cause high pressure rupture.

機械密封：電池必須在一個防水氣和空氣之情況下做焊接或密封之加工,諮詢新利達電池有限公司查詢有關之安全建議.電池在正常使用下會產生氫氣，當開蓋後和空氣結合後會產生易燃或易爆的氣體，放在通風通道例外.短路，高溫，靜電火花也容易產生火點

不要忽略已開封電池之安全.已封裝之電池是不容許打開外殼和有機會引起高壓擊破.

### **SECTION VIII – Exposure Controls / Person Protection 接觸控制/個人保護**

Ventilation Requirements 通風系統之要求 : N.A.

Respiratory Protection 呼吸道保護: N.A..

Eyes Protection 眼睛保護 : N.A.

Gloves 手套 : N.A.

### **SECTION IX – Physical / Chemical Properties 物理/化學特性**

Boiling Point 沸點 : N.A.

Specific Gravity 比重 (H2O = 1) : N.A.

Melting Point 熔點 : N.A.

Vapor Pressure 蒸氣壓 (mm Hg) : N.A.

Vapor Density 蒸氣密度 (AIR = 1) : N.A.

Evaporation Rate (Butyl Acetate) : N.A.

Solubility in Water 溶解度 : N.A.

Appearance and Odor 形狀和氣味 , Cylindrical Shape, Odorless 圓柱型 : 無氣味



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### **SECTION X – Stability and Reactivity 反應性數據**

Stability 穩定性: stable 穩定

Conditions to Avoid 避免條件 : Stable 穩定

Hazardous Decomposition or Byproducts : 副產品或分解物是危險的

The Alkaline Button Battery do not meet any of the criteria established in 40 CFR 261.2 of reactivity

鹼性電池的反應性達不到 40CFR 261.2 的標準

### **SECTION XI – Toxicological Information : N.A.**

### **SECTION XII – Ecological Information 生態資料 : N.A.**

### **SECTION XIII –Disposal Consideration : Dispose of the batteries according to government regulations.**

### **SECTION XIV – Transport Information**

The Batteries in all forms of transportation (e.g. Truck, air, or sea) must be packaged in a safe and responsible manner. Regulatory concerns from all agencies for safe packaging require that batteries be packaged in a manner that prevents short circuits and be contained in (Strong Carton / Packaging) that prevents spillage of contents.

所有電池之運送方式(e.g.航運,空運和陸運)必須要已負責任之態度和安全包裝來運送.所有代理在監管安全包裝的問題上,電池必須要裝放在(加厚紙箱/包裝)防止短路和防電池溢出之包裝容器內.

Alkaline battery (sometime referred to as "**Dry Cell**") are not listed as dangerous goods under the ADR European Agreement Concerning the International Carriage of Dangerous Goods by Road, The IMDG International Maritime Dangerous Goods Code, UN Dangerous Good Regulations, IATA Dangerous Goods Regulation, ICAO Technical Instructions and the U.S. hazardous materials regulations (49 CFR). These batteries are not subject to the dangerous goods regulations provided they meet the requirement contained in the following special provisions.

鹼性電池(有需要時可參考"干電池", 因干電池類在 ADR European Agreement Concerning the International Carriage of Dangerous Goods by Road, The IMDG International Maritime Dangerous Goods Code, UN Dangerous Good Regulations, IATA Dangerous Goods Regulation, ICAO Technical Instructions and the U.S. hazardous materials regulations (49 CFR)的危險品類別中.

此電池在下列的航運條例中也不屬於危險品:

Regulatory Parties	Special Provisions
ADR	Not Regulated
IMDG	Not Regulated
UN, ICAO	Not Regulated
US DOT	49 CFR 172.102 Provision 130
IATA,	A123,

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Ref: Summary of Packing Instruction (IATA Dangerous Goods Regulations 57<sup>th</sup> Edition) the minimum requirements necessary to transport as non-restricted goods are as follows

總括在包裝指引(IATA 危險品條例 57 版), 在非違禁品運輸中最基本之要求如下:

**\*\*All Alkaline Batteries are packed in such a way to prevent short circuits or the generation dangerous quantities of heat and meet the special provisions listed above. In addition, The IATA Dangerous Goods Regulations ICAO Technical Instructions require the words " Not Restricted" and the Special Provision No: A123 be provided on the air waybill, when an air waybill is issued.**

所有鹼性電池必需包裝在防止短路或在防止產生過熱之數量內和達到有關特別指引之要求下. 另外,有關國際危險品的規例中的 ICAO 技術指示 "Not Restricted"字眼, 在 A123 的特別條例中必須展示在空運提單中

### **SECTION XV – Regulatory Information:**

Batteries are not classified as dangerous goods by US Department of Transportation or the major international regulatory bodies and are therefore not regulated.

SARA/TITLE III – As an article, this battery and its contents are not subject to the requirements of the Emergency Planning and Community Right to Know Act.

在美國運輸局和主要國際之條例中, 鋅錳鹼性電池是不介定在危險品的種類內.

SARA/TITLE III – 文章中, 此類電池沒有在有關急介定之項目中.

**SECTION XVI – Other Information : None**



## Test Report

No.: HKHL1504016822JL

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NEW LEADER BATTERY LTD.  
FLAT A, 4/F, BLOCK 1, CAMELPAINT BUILDING, 62 HOI YUEN ROAD, KWUN TONG, KOWLOON, HONG KONG

The following samples were submitted and identified on behalf of the client as:

### 1.5 V CYLINDRICAL ALKALINE ZINC MANGANESE BATTERY

SGS Case No. : HKHL150400009228  
Style / Item No. : LR 6 / AM3, LR03 / AM 4  
Manufacturer : NEW LEADER BATTERY LTD.  
Country of Origin : CHINA  
Sample Receiving Date : APR 09, 2015  
Last Information Date : APR 24, 2015  
Test Performing Date : APR 09 – 25, 2015

Test Requested : Please refer to the result summary.

Test Method & Results : Please refer to next page(s).

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Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.



Result Summary :

Test Requested	Conclusion
<b>1. European Directive 2006/66/EC and its amendments (Directive 2013/56/EU) – Lead, Cadmium and Mercury Content (Selected part as specified by client)</b>	PASS
<b>2. US Public Law No 104-142 (1996) Title II – Mercury-Containing Battery Management Act – Mercury Content (Selected part as specified by client)</b>	PASS
<b>3. Cadmium, Lead, Mercury, Hexavalent Chromium, Polybromobiphenyl (PBB) and Polybromodiphenyl ether (PBDE) content (Selected part as specified by client)</b>	PASS

Signed for and on behalf of  
SGS Hong Kong Ltd.



Che Wai Leuk, Jerry  
Section Manager

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Test Results :

**1. European Directive 2006/66/EC and its amendments (Directive 2013/56/EU) – Lead, Cadmium and Mercury Content**

Method : Acid digestion followed by Atomic Absorption Spectrometry analysis.

For portable batteries:

Test Item	Result (%)	Reporting Limit (%)	Labelling requirement (%)	Permissible Limit (%)
	1 – 2			
Lead (Pb)	ND	0.001	> 0.004	--
Cadmium (Cd)	ND	0.001	> 0.002	0.002 <sup>##</sup>
Mercury (Hg)	ND	0.0001	> 0.0005	0.0005
<b>Comment</b>	PASS	--	--	--

Sample Description :

1. 1.5 V CYLINDRICAL ALKALINE ZINC MANGANESE BATTERY (LR03 / AM 4)
2. 1.5 V CYLINDRICAL ALKALINE ZINC MANGANESE BATTERY (LR 6 / AM3)

- Note :
1. % = percentage by weight
  2. > = greater than
  3. <sup>##</sup> = Not applicable to portable batteries and accumulators intended to use in emergency and alarm systems, medical equipments and cordless power tools.
  4. ND = Not Detected

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Test Results (Cont'd) :

### 2. US Public Law No 104-142 (1996) Title II – Mercury-Containing Battery Management Act – Mercury Content

Method : Acid digestion followed by Atomic Absorption Spectrometry analysis.

For battery except alkaline manganese button cell :

Test Item	Result (mg/kg)	Reporting Limit (mg/kg)	Requirement
	1 – 2		
Mercury (Hg)	ND	1	Prohibited
<b>Comment</b>	PASS	--	--

#### Sample Description :

1. 1.5 V CYLINDRICAL ALKALINE ZINC MANGANESE BATTERY (LR03 / AM 4)
2. 1.5 V CYLINDRICAL ALKALINE ZINC MANGANESE BATTERY (LR 6 / AM3)

- Note :
1. mg/cell = milligram per cell
  2. mg/kg = milligram per kilogram
  3. ND = Not Detected

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Test Results (Cont'd) :

**3. Cadmium, Lead, Mercury, Hexavalent Chromium, Polybromobiphenyl (PBB) and Polybromodiphenyl ether (PBDE) content**

Method : With reference to IEC 62321:2008, IEC 62321-4:2013, IEC62321-5:2013. Lead, Cadmium and Mercury were analyzed by Inductively Coupled Argon Plasma Spectrometry, Chromium (VI) was analyzed by UV-Visible Spectroscopy and PBB, PBDE were analyzed by Gas Chromatography – Mass Spectrometry (GC-MS).

Test Item	Result (mg/kg)		Reporting Limit (mg/kg)	Permissible Limit (mg/kg)
	1 – 2			
Cadmium (Cd)	ND		5	100
Lead (Pb)	ND		5	1000
Mercury (Hg)	ND		5	1000
Hexavalent Chromium (Cr(VI))	ND		5	1000
<b>Sum of PBBs</b>	ND		--	1000
Monobromobiphenyl	ND		5	--
Dibromobiphenyl	ND		5	--
Tribromobiphenyl	ND		5	--
Tetrabromobiphenyl	ND		5	--
Pentabromobiphenyl	ND		5	--
Hexabromobiphenyl	ND		5	--
Heptabromobiphenyl	ND		5	--
Octabromobiphenyl	ND		5	--
Nonabromobiphenyl	ND		5	--
Decabromobiphenyl	ND		5	--
<b>Sum of PBDEs</b>	ND		--	1000
Monobromodiphenyl ether	ND		5	--
Dibromodiphenyl ether	ND		5	--
Tribromodiphenyl ether	ND		5	--
Tetrabromodiphenyl ether	ND		5	--
Pentabromodiphenyl ether	ND		5	--
Hexabromodiphenyl ether	ND		5	--
Heptabromodiphenyl ether	ND		5	--
Octabromodiphenyl ether	ND		5	--
Nonabromodiphenyl ether	ND		5	--
Decabromodiphenyl ether	ND		5	--
<b>Comment</b>	PASS		--	--

**Sample Description:**

1. 1.5 V CYLINDRICAL ALKALINE ZINC MANGANESE BATTERY (LR03 / AM 4)
2. 1.5 V CYLINDRICAL ALKALINE ZINC MANGANESE BATTERY (LR 6 / AM3)

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Test Results (Cont'd) :

Note : 1. mg/kg = milligram per kilogram  
2. ND = Not Detected

### Photo Appendix



\*\*\* End of Report \*\*\*

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