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., Bik 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



Page: 1 of 4 Date: Jan 22 2009 Test Report Material Safety Data Sheet for Alkaline Button cell LR41, LR1130, LR44 Document Number: Revision: 00 Page 1 of 4 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 Hazardous Components: Description: Approximate % of total weight Mercury 0.0005 Wt% (Mercury Free type) Mercury 0.15 % (Regular Type) Lead 0.001 - 0.004 Wt% Zinc 3 – 10 Wt% Manganese Dioxide 10 - 30 Wt% KOH/NaOH solution 5 - 11 Wt% 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 button or cylindrical shape, odorless Section IV - Hazard Classification Classification N.A.

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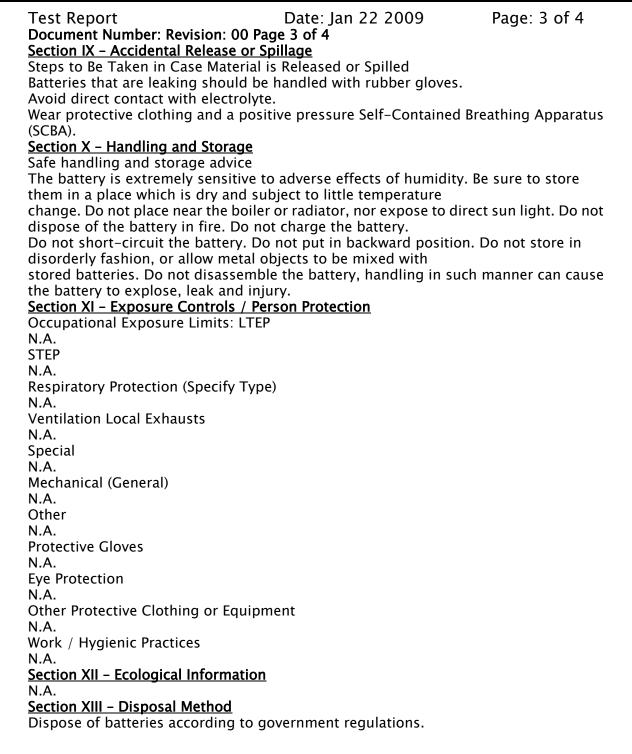
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Page: 2 of 4 Date: Jan 22 2009 Test Report Document Number: Revision: 00 Page 2 of 4 Section V - Reactivity Data Stability Unstable Conditions to Avoid Stable Incompatibility (Materials to Avoid) Hazardous Decomposition or Byproducts When heated, battery may emit hazardous vapour of KOH/NaOH and Hg Hazardous (Regular type) Polymerization May Occur Conditions to Avoid Will Not Occur Section VI – Health Hazard Data Route(s) of Entry Inhalation N.A. Skin N.A. Indestion 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 lunas. 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 XIV - Transportation Information

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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 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). As of 50<sup>th</sup> Edition (2009) IATA requires that batteries being transported by air must be protected from short-circuiting and protected from movement that could lead to short-circuiting.

#### 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.