

PerfPower Corporation

MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION

PRODUCT NAME: Alkaline Batteries - "No Mercury" Formula

SIZES: LR6, LR03, LR20, LR14, GLR61

2. INGREDIENTS

INGREDIENT NAME	CAS #	%	TLV*
Manganese Dioxide	1313-13-9	32 - 38	C5.0 mg/m ³ (TWA)
Steel	7439-89-6	19 - 23	--
Zinc	7440-66-6	11 - 16	5 mg/m ³ (ZnO, Fume, TWA)
Potassium Hydroxide	1310-58-3	5 - 9	Not Listed
Graphite	7782-42-5	3 - 5	15 mppcf
Barium Sulfate	7727-43-7	<5	15 mg/m ³ (TWA)
Water, paper, plastic, other	--	Balance	--

3. PHYSICAL DATA

Boiling Point @ 760 mm Hg (°C):	NA
Vapor Pressure (mm Hg @ 25°C):	NA
Vapor Density (Air = 1):	NA
Density (grams/cc):	NA
Percent Volatile by Volume (%):	NA
Evaporation Rate (Butyl Acetate = 1):	NA
Physical State:	NA
Solubility in Water (% by Weight):	NA
pH:	NA
Appearance and Odor:	geometric solid object

NA = Not Applicable

Alkaline Batteries Page 1 of 3



EcoReady
Corporation

4. FIRE & EXPLOSION HAZARD DATA

FLASH POINT: NA LOWER (LEL): NA

FLAMMABLE LIMITS IN AIR (%): NA UPPER (UEL): NA

EXTINGUISHING MEDIA: Use water, foam or dry powder, as appropriate.

AUTO-IGNITION: NA

SPECIAL FIRE FIGHTING PROCEDURES: As with any fire, wear self-contained breathing apparatus to avoid inhalation of hazardous decomposition products (See section 2).

SPECIAL FIRE EXPLOSION HAZARDS: Like any sealed container, battery cells may rupture when exposed to excessive heat; this could result in the release of flammable or corrosive materials.

5. HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE (TLV) AND SOURCE: NA

EFFECTS OF OVEREXPOSURE: None. (In fire or rupture situation see section 2 and section 4)

EMERGENCY FIRST AID PROCEDURES:

Skin and Eyes:

In the event that battery ruptures, flush exposed skin with copious quantities of flowing lukewarm water for a minimum of 15 minutes. Get immediate medical attention for eyes. Wash skin with soap and water.

Swallowing:

Ingestion of a battery can be harmful. Call Phone: 86-539-8711259 for advice and follow-up.

6. REACTIVITY DATA

STABLE OR UNSTABLE: Stable

INCOMPATIBILITY (MATERIALS TO AVOID): NA

HAZARDOUS DECOMPOSITION PRODUCTS: NA

DECOMPOSITION TEMPERATURE (0°F): NA

HAZARDOUS POLYMERIZATION: Will Not Occur

CONDITIONS TO AVOID: Avoid electrical shorting.

NA = Not Applicable

Alkaline Batteries Page 2 of 3



EcoReady
Corporation

7. SPILL OR LEAK PROCEDURES

PROCEDURES TO CONTAIN AND CLEAN UP LEAKS OR SPILLS: In the event of a battery rupture, prevent skin contact and collect all released material in a plastic lined metal container.

REPORTING PROCEDURE: Report all spills in accordance with International and Local reporting requirements.

8. PROTECTION INFORMATION

RESPIRATORY PROTECTION (SPECIFY TYPE): NA

VENTILATION:

Local Exhaust:	NA
Mechanical (General):	NA
Special:	NA
Other:	NA

PROTECTIVE GLOVES: NA

EYE PROTECTION: NA

OTHER PROTECTIVE CLOTHING: NA

9. SPECIAL PRECAUTIONS

HANDLING AND STORAGE: Store in a dry place. Storing unpackaged cells together could result in cell shorting and heat build-up.

10. SARA 313

Notification is not required because these products are article(s) that do not release a covered toxic chemical under the normal conditions of processing or use.

11. TRANSPORTATION-SHIPPING

These are "batteries, dry" and are not considered to be a "hazardous material" per the Dept. of (USDOT) Transportation regulations or "dangerous goods" per the International Air Transport Association (IATA) regulations.

NA = Not Applicable

Alkaline Batteries Page 3 of 3



EcoReady
Corporation