

MATERIAL SAFETY DATA SHEET (according to 91/155/EEC, as amended)

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Product: DURACELL RECHARGEABLE ACCU NICKEL METAL HYDRIDE ROUND CELLS

GMEL # 2018.2E

Date / revised: Nov. 8, 2004

Revision: 2

1. Substance/preparation and company name

Duracell Rechargeable Accu Nickel Metal Hydride Round Cells: HR1300 (D); HR1400 (C); HR1500 (AA); HR2400 (AAA); HR1604 (9V)

Company:

Duracell Batteries Ltd.
c/o Gillette U.K. Ltd.
Great West Road
Isleworth, Middlesex
TW7 5NP
UK

Country contact numbers:

Belgium: 02 711 9100
Denmark: 33 26 9100
Finland: 09 452 872
France: 01 47 48 70 00
Germany(CEW): 06173 3000

Italy: 02 66 7811
Netherlands: 070 4131 700
Norway: 022 884 250
Spain: 091 387 9500
Sweden: 08 568 40 400
United Kingdom: 020 8560 1234

2. Composition/information on ingredients

<u>Chemical nature:</u>	<u>Wt. %</u>	<u>CAS No.</u>	<u>EEC No.</u>	<u>Index No.</u>	<u>Classification</u>
Potassium Hydroxide	7-10	1310-58-3	215-181-3	019-002-00-8	C; R34
Mercury	<5 ppm	7439-97-6	231-106-7	080-001-00-0	T: R23/33

3. Possible hazards

Critical hazards to man: If battery is leaking, exposure to caustic ingredients may occur. Sensitisation may occur upon skin contact.

Critical hazards to the environment: Not available

Other Information: Keep batteries away from small children.

4. First aid measures

General advice: These chemicals and metals are contained in a sealed can. For consumer use, adequate hazard warnings are included on both the package and on the battery. Potential for exposure should not exist unless the battery leaks, is exposed to high temperatures or is mechanically, physically, or electrically abused. Contains concentrated (~35%) potassium hydroxide, which is caustic. Anticipated potential leakage of potassium hydroxide is 2 - 20 ml,

depending on battery size. In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).

If inhaled: Not anticipated. Respiratory and eye irritation may occur if fumes are released due to heat or an abundance of leaking batteries. Remove to fresh air. Contact physician if irritation persists.

On skin contact: Not anticipated. Irritation, including caustic burns/injury, may occur. If battery is leaking, irrigate exposed skin with copious amounts of clear, tepid water for at least 15 minutes. If irritation, injury or pain persists, consult a physician.

On contact with eyes: Not anticipated. Irritation, including caustic burns/injury, may occur. If battery is leaking and material contacts eyes, flush with copious amounts of clear, tepid water for 30 minutes. Contact physician at once.

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4. First aid measures (continued)

On ingestion: Not anticipated due to size of batteries. Irritation, including caustic burns/injury may occur following exposure to a leaking battery. Rinse mouth and surrounding area with clear, tepid water for at least 15 minutes. Consult physician immediately for treatment and to rule out involvement of the esophagus and other tissues.

Notes to Physician:

- 1) The acutely toxic ingredients are concentrated (35%) potassium hydroxide and nickel.
- 2) Chronic exposure to nickel has been reported to be carcinogenic and disposal processes resulting in nickel exposure may be hazardous.
- 3) Anticipated potential leakage of potassium hydroxide is 2-20 ml.
- 4) If the cell is abusively opened the electrodes may react with air and ignite.

5. Fire fighting measures

Suitable extinguishing media: Water, carbon dioxide, sand, Class "D" extinguisher.

Special protective equipment: Use self-contained breathing apparatus and full protective clothing. Fight fire from a distance or protected area. Cool and use caution when handling fire exposed batteries (batteries may explode in heat of fire).

Further information: Hazardous decomposition products may be produced. (Sec. 10).

6. Accidental release measures

Personal precautions: Irritating vapours may be released from leaking or ruptured batteries. Avoid eye or skin contact and inhalation of vapours. Increase ventilation. Clean-up personnel should wear appropriate protective gear.

Environmental precautions: Notify safety personnel of large spills.

Methods for cleaning up: Contain for disposal.

7. Handling and storage

Handling

DO NOT short or install incorrectly. Batteries may explode, pyrolize or vent if disassembled, crushed or exposed to high temperatures. Install batteries in accordance with equipment instructions. Replace all batteries in equipment at the same time. Do not carry batteries loose in pocket or bag.

Storage

Store at room temperature.

8. Exposure controls and personal protection

8-Hour TWAs: Nickel (insoluble as Ni) - 1.0 mg/m³ (OSHA); 0.2 mg/m³ (ACGIH); 0.05 mg/m³ (Gillette)
Nickel (elemental) - 1.5 mg/m³ (ACGIH); 1.0 mg/m³ (OSHA)
Nickel (soluble compounds, as Ni) - 0.1 mg/m³ (ACGIH/OSHA)
Potassium Hydroxide - 2.0 mg/m³ (STEL) (U.K.); (Ceiling) (ACGIH)
Mercury - 0.025 mg/m³ (U.K./ACGIH, skin); 0.1 mg/m³ (ceiling) (OSHA); 0.1 mg/m³ (Germany)

These levels are not anticipated under normal consumer use conditions.

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8. Exposure controls and personal protective equipment (continued)

Personal protective equipment

Respiratory equipment: None required under normal consumer use conditions.

Hand protection: None required under normal use conditions. Use neoprene, rubber or nitrile gloves when handling leaking batteries.

Eye protection: None under normal use conditions. Wear safety glasses when handling leaking batteries.

General safety and hygiene measures: Use only as directed.

9. Physical and chemical properties

Form and Colour: Various size battery packs. Contents dark in colour.

Odour: Not applicable

Change in physical state

Melting point/melting range: Not available

Boiling point/boiling range: Not available

Flash point: Not available

Explosion limits: Not available

Ignition temperature: Not determined

Vapour pressure: Not determined

Specific Gravity: Not applicable

% Volatiles: Not available

Solubility in water: Not applicable

Solubility in other solvents: Not applicable

pH value: Not available

Octanol/water partition coefficient (log POW): Not available

Viscosity: Not available

10. Stability and reactivity

Thermal decomposition: Batteries may burst and release hazardous decomposition products when exposed to a fire situation.

Substance(s) to avoid: Strong oxidisers

Hazardous reactions: Contents incompatible with strong oxidising agents.

Hazardous decomposition products: Thermal degradation may produce hazardous mercury fumes; Hydrogen gas; caustic vapours of potassium hydroxide and other toxic by-products.

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11. Toxicological information

Toxicity information is available on the battery ingredients noted in Section 2, but, generally not applicable to intact batteries as used by customers.

Chronic Health Effects: Not applicable to intact batteries.

12. Ecological information

Not available.

13. Disposal considerations

Product: Discharged batteries may be disposed of with normal household trash.

14. Transport information

UN Number: None
IMO Classification: None
ADR Classification: None
IATA Classification: None

These batteries are not regulated by U. S. DOT or international agencies as hazardous materials or dangerous goods when shipped. A shipping name of 'Alkaline Batteries - Non-hazardous' may be used on all domestic and international bills of lading.

15. Regulatory information

EC Labeling: None
Risk Phrases: None
Safety Phrases: None

Labeling is not required because batteries are classified as "articles" under the Dangerous Preparations Directive and as such are exempt from the requirements of the Directive.

16. Other information:**Preparation of MSDS:**

Prepared by: Gillette Medical Evaluation Laboratories
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Needham, MA 02492 USA

Phone Number:
781.292.8151

Date: 08/11/04
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The information contained in the Material Safety Data Sheet is based on data considered to be accurate, however, no warranty is expressed or implied regarding the accuracy of the data or the results to be obtained from the use thereof.