

Daily Power Batteries Limited

Rm A, 9/F., Hing Win Fty Bldg., 110 How Ming St., Kwun Tong, Kln

Tel : (852) 2343 0818 Fax : (852) 2341 9839 Email : sales@dpbatteries.com.hk

www.dpbatteries.com.hk

Material Safety Date Sheet

IDENTITY (As Read on Label and Line)

A23, A27, 4LR44, 10A, 11A
Alkaline Battery

Notice : 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

Daily Power Batteries Ltd

Address (number,Sheet,City,State,and ZIP Code)

Flat A, 9/F., Hing Win Fty Bldg.,

110 How Ming St.,

Kwun Tong, Kln

Telephone Number

(852) 2343 0818

Fax Number

(852) 2341 9839

Date Prepared

14 Dec., 2004

Signature of Preparer (optional)

Section II - Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity,Common Names)

(contents %)

Compiled with 98/101/EEC & 91/157/EEC Specification (%)

| | |
|--------------------|----------|
| 1) Mercury Content | < 0.0005 |
| 2) Cadmium Content | < 0.025 |
| 3) Lead Content | < 0.4 |

Section III - Physical/Chemical Characteristics

Boiling Point

KOH aqua solution = 140 degree Celsius

Vapor Pressure (mmHg)

KOH aqua solution = 3mmHg at 20 degree Celsius

Vapor Density (Air -1)

Solubility in Water

KOH - complete

Specific Gravity (H2O-1)

MnO2 = 4.4, Zn = 7.1, KOH = 2.0

Melting Point

MnO2 - decomposes at 535 degree Celsius

Zn = 420 degree Celsius, KOH aqua = - 35 degree Celsius

Evaporation Rate

(Butyl Acetate = 1)

Appearance and Color MnO2 is a black powder, Graphite is also a black powder, Zinc is a silver metal.

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KOH aqua is a colorless liquid with stimulated odor.

Section IV - Fire and Explosion Hazard Data

Flash point (Method used)

Incombustible

Extinguishing Media

Special Fire Fighting Procedure

Flammable Limits

LBL

UEL

Unusual Fire and Explosion Hazards

Section V - Reactivity Data

Stability

Unstable

Stable

√

Conditions to avoid

Do not short-circuit, charge or dispose of in fire

Incompatibility (Materials to Avoid)

Hazardous Decomposition or byproducts

Hazardous

May occur

Polymerization

Will not occur

Hazardous polymerization will not occur

Conditions to avoid

Section VI - Health Hazard Data

Route(s) of entry.

Inhalation ? YES

Skin ? YES Ingestion ? YES

Health Hazards (Acute and Chronic)

These chemicals are contained in a sealed can. Risk of exposure occurs, only if battery is mechanically or electrically abused. The most likely risk is acute exposure when a cell vents KOH is caustic alkali and attack the skin and eyes. Contact of electrolyte with skin and eyes should be avoided.

Cardnogenicity NTP ? None

IARC Monographs ? None OSHA Regulated ? None

Signs and Symptoms of exposure

KOH can cause chemical burn upon contact with skin.

Medical Conditions

Generally aggravated by exposure

An acute exposure will not generally aggravate any medical help.

Emergency and First Aid Procedures.

IN case of skin contact with content of battery, flush immediately with water. For eye contact, flush with copious amount of water for 10 minutes. If irritation persists, get medical help.

Section VII - Precautions for Safe Handling and Use

Steps to be taken in case material is released or spilled Wipe out by wet duster

Waste Disposal Method

General abandonment

Precautions to be taken in handling and storing

Avoid mechanical or electrical abuse.

Other precautions

Do not short circuit, charge or dispose of in fire. Battery may explode or leak.

Section VII - Control Measures

Respiratory Protection (Specify Type)

None

Ventilation

Local Exhaust

Mechanical (General)

Special

Other

Eye Protection Safety Glasses

Protective Gloves

Butyl

Other Protective Clothing or Equipment

None

Work / Hygiene Practices