



Datasheet

1.5V Alkaline N Battery

RS Stock number 749-2623



Description:

Alkaline Manganese Dioxide battery for general purpose applications.

Specifications:

Chemistry:

Dimensions:

Nominal Voltage:

Nominal Capacity:

Size:

Terminal Type:

Weight:

Shelf Life:

Alkaline

30.2 x 12 mm

1.5 V

900 mAh

N

Standard

 $9 \pm 0.5 \, g$

36 Months





Performance:

Battery service life should meet the values as stated in Table 1.

Table 1

		D	ischarges		
Test condition			Average duration ¹⁾ at 20°C		
Load	Daily period	End voltage	Initial	After 12 months storage ²⁾	After 36 months storage ²⁾
300Ω	24 h/d	0.9V	220.0 h	195.0 h	176.0h
20Ω	24 h/d	0.9V	11.8h	10.2 h	9.4 h
5.1Ω	24 h/d	0.9V	2.5 h	2.1 h	1.9h

- 1) Average service life will be calculated without the highest and the lowest of 9 samples.
- 2) Storage conditions: Temperature 20 \pm 2 ^{o}C and the Relative Humidity shall be 65 \pm 20%

Heavy Metal Content:

Mercury (Hg) content should be less than 2% Cadmium (Cd) content should be less than 5 ppm Lead (Pb) content should be less than 5 ppm

Quality Assurance:

DESCRIPTION	AQL		
Battery dimensions	0.65%		
Appearance	1.00%		
Off load voltage	0.65%		
On load voltage	1.00%		
Service Output	Note 1		
Leakage 6.1	0.65% (Note 2)		
6.2	Note 3		
6.3	Note 4		





Note 1: Acceptance / rejection in accordance with IEC publication (1993) 86-1 Sub-Clause 8.8

Note 2: Leakage on arrival at warehouse is within 2 months after shipping

Note 3: Sample size: n = 20, Judgement: Ac = 1, Re = 2

Note 4: Sample size: n = 20, Judgement: Ac = 0, Re = 2

Precaution and Handling:

Do not disassemble or short-circuit batteries.

Do not recharge batteries.

Do not dispose of batteries in fire.

Do not allow metal objects to contact the battery terminals.

Do not mix with used or other battery type (such as alkaline with carbon zinc).

Do not solder the batteries directly. If soldering or welding connection to the battery is required, consult our engineer for proper methods.

Do not over-discharge batteries. Force discharging batteries by external power source in a series may cause explosion.

To install or remove batteries, follow the equipment manufacturer's instructions.

Keep battery away from small children. If swallowed, consult a physician at once.

Remove batteries from device when it is not in use.

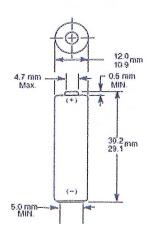
Storage:

Store in a cool, dry place before use.

Do not keep batteries at a temperature of 45 °C or above.

Do not keep batteries at relative humidity of 75% or above.

Dimensional Drawings:



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1. Identification of the substance/preparation and company

Product name: Alkaline batteries non-rechargeable

Company: NEXcell battery co., Ltd.

Address: 3F No. 24 PROSPERITY RD. 2 SCIENCE PARK HSINCHU TAIWAN

Tel: +886 3 5783800 Fax: +886 3 5786645

2. Composition /Information on Ingredients:

Chemical Nature: Mixture

CAS-No/EINECS NO.: Not applicable

Dangerous ingredients which have to be mentioned acc. To 99/45/EEC and it adaptations

Chemical Name	HAZARDOUS%	CAS No.	TLV(UNITS)
Manganese Dioxide	36-43	1313-13-9	5 mg/m ³
Zinc	13-18	7440-66-6	10 mg ZnO/m ³
Potassium Hydroxide (40%) 4-9	1310-58-3	2 mg/m³
Graphite, natural	1-4	7782-42-5	2 mg/m ³
Zinc Oxide	<1	1314-13-2	10 mg/m ³

3. Hazards identifications

General:

The Common known rules for handing of chemicals should be

obeyed. Do not eat drink the product,

Physical-Chemical Hazards:

This preparation is not classified as dangerous according to

the criteria of directive 99/45/EEC

Hazards to man:

LD50-LC50 Mixture: LD 50 oral rat is unknown

Route of entry - Inhalation: NO Route of entry - Skin: YES Route of entry - Ingestion: NO

No health hazard unless battery ruptures. In that event, it

may cause burns and irritation.

Hazards to environment:

Not applicable.

4. First -aid measures:

Inhalation:

Not anticipated. If battery is leaking, contents may be irritating

to respiratory passages. Remove to fresh air. Contact

physician if irritation persists.

Skin Contact:

Not anticipated. 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.

Eye contact:

Not anticipated. If battery is leaking and material contacts eyes,

X's

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flush with copious amounts of clear, tepid water for 30

minutes. Contact physician at once.

Not anticipated. Rinse the mouth and surrounding area with

clear, tepid water for at least 15 minutes. Consult a physician immediately for treatment and to rule out involvement of the

esophagus and other tissues.

Notes to Physician:

Ingestion:

1) The primary acutely toxic ingredient is concentrated (40%) potassium hydroxide.

2) Anticipated potential leakage of potassium hydroxide is 1-3 ml, depending on battery size.

3) This MSDS does not include or address the small button cell batteries, which can be ingested.

5. Fire-fighting measures

Suitable extinguishing media: As appropriate for surrounding area.

Exposure hazards from combustion products: In case of fire, thermal degradation may

> produce hazardous fumes of zinc and manganese; hydrogen gas; caustic vapors of potassium hydroxide and other toxic

by-products.

Personal protective equipments: Wear full protective clothing. Use self contained

breathing apparatus.

6. Accidental release measures:

Personal precautions: Notify safety personnel of large spills. Caustic

> potassium hydroxide may be released from leaking or ruptured batteries. Avoid eye or skin contact and inhalation of vapors. Increase ventilation. Clean-up personnel should wear appropriate protective wear.

Environmental precautions:

In the event of battery rupture, prevent released material

from entering drains.

Methods for cleaning up: In the event of battery rupture, collect all released material

in plastic bag for waste disposal. Flush residue with Plenty of water. Care for well-Ventilated conditions. Recycle or

dispose of the materials in an appropriate way.

7. Handling and storage

Store at room temperature. Avoid mechanical or electrical abuse. Do not short or install incorrectly. Batteries may explode, pyrolyze or vent if disassembled, crushed, recharged or exposed to high temperatures. Install batteries in accordance with equipment instructions. Do

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not mix battery systems, such as alkaline and zinc carbon, in the same equipment. Replace all batteries in equipment at the same time. Do not carry batteries loose in pocket or bag. Do not remove battery label.

8. Exposure controls/Personal protection

Exposition/ Technical measures: General ventilation under normal use conditions.

Eye Protection: None under normal use conditions. Wear safety glasses

when handling leaking batteries.

Skin Protection: None under normal use conditions. Use neoprene,

rubber or latex gloves when handling leaking batteries.

Respiratory Protection: None under normal use conditions.

Other: Keep batteries away from small children.

9. Physical and chemical propertied

Appearance And Odor: N/R Boiling Point: N/R Melting Point: N/R

Vapor Pressure (MM Hg/70 F): N/R Vapor Density (Air=1): N/R Specific Gravity: N/R

Decomposition Temperature: Evaporation Rate And Ref: Solubility In Water: N/R

UNKNOWN N/R

Percent Volatiles By Volume: N/R Viscosity: N/R pH: N/R

Corrosion Rate (IPY): UNKNOWN Autoignition Temperature:

N/R

10. Stability and Reactivity

Stability: YES

Condition to avoid (Stability): Avoid electrical shorting.

Materials to avoid: NOT APPLICABLE

Hazardous decomposition products: Oxides or fumes of manganese, zinc, potassium

hydroxide.

Hazardous Poly Occur: NO

Conditions To Avoid (Poly): NOT APPLICABLE

11. Toxicological information

The product is multi component mixture for which no toxicological date exists.

12. Ecological information

In general, no ecological date is available for preparations.

13.Disposal considerations

Waste disposal method: Individual consumers may dispose of spent (used) batteries with

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household trash. Nanfu does not recommend that spent batteries be accumulated (quantities of five gallons or more should be disposed of in a secure landfill), if recycling is not possible, the product have to be disposed of in accordance with your local legislation and regulations. Do not incinerate, since batteries may explode at excessive temperatures.

14. Transport Information

Road (ADR/RID) : not regulated
Air (ICAO/IATA) : not regulated
Sea (IMDG) : not regulated

15.Regulatory Information

None

16.Other information

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