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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB 8897.5-2013

Replacing GB 8897.5-2006

**Primary batteries -- Part 5: Safety of batteries with aqueous
electrolyte**

原电池 第5部分：水溶液电解质电池的安全要求

(English Translation)

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Foreword

All technical contents of this section is mandatory.

GB/T (GB) 8897 "primary cell" standard divided into five parts.

- GB/T 8897.1 "galvanic cell Part 1. General";
- GB 8897.2 "galvanic cell Part 2. Dimensions and electrical performance requirements";
- GB/T 8897.3 "galvanic cell Part 3. Battery Watch";
- GB 8897.4 "galvanic cell Part 4. lithium safety requirements";
- GB 8897.5 "galvanic cell - Part 5. aqueous electrolyte battery safety requirements."

This is Part 5 GB (/ T) 8897 is.

This section drafted in accordance with the rules GB/T 1.1-2009 given.

This partial replacement GB 8897.5-2006 "primary cell Part 5. aqueous electrolyte battery safety requirements."

This section is equivalent to using IEC 60086-5:2011 "primary cell Part 5. aqueous electrolyte battery safety requirements."

This section compared with GB 8897.5-2006, major changes are as follows.

- modify the terms and definitions of the battery;
- equivalent to using IEC 60086-5:2011, cylindrical zinc - manganese dioxide battery D projects to be tested;
- increased inspection requirements of a rectangular cell (Table 1);
- battery of safety tests have increased the "no fire" requirements;
- modify the requirements of the battery mark;
- Added Appendix C (informative) safety warning map.

Consistency correspondence relationship with international documents in this section of our

normative references the following documents.

--- GB/T 8897.1-2013 galvanic cell Part 1. General (IEC 60086-1.2011, MOD)

--- GB/T 8897.2-2013 galvanic cell Part 2. Dimensions and electrical performance requirements (IEC 60086-2.2011, MOD)

This section was proposed by China Light Industry Federation.

This part of the jurisdiction of the National Technical Committee of Standardization primary battery (SAC/TC176).

This section was drafted. Guangzhou Tiger Head Battery Group Co., Ltd., chemical power Light Industry Research Institute (National Chemical Power Products Quality

Supervision and Testing Center), Fujian Nanping Nanfu Battery Co., Ltd., BOC (Ningbo) Battery Co., Ltd., Zhejiang Mustang Battery Co., Ltd., Sichuan

Changhong New Energy Technology Co., Ltd., Guangdong is Dragon Corp., Changzhou of legislation Battery Co., Ltd., Jiashan River Battery Co., Ltd., Nanjing

Wave Howard Johnson Battery Co., Ltd., Li Jia Power Technology (Shenzhen) Co., Ltd.

1 Scope

This section provides safety-aqueous electrolyte primary battery performance requirements and test methods.

This section applies to ensure the safe use of the battery case with the normal use and in the foreseeable misuse.

2 Normative references

The following documents for the application of this document is essential. For dated references, only applies to the version dated paper

Pieces. For undated references, the latest edition (including any amendments) applies to this document.

IEC 60086-1.2011 galvanic cell 1. General (Primarybatteries-Part 1. Gernal)

IEC 60086-2.2011 Part primary battery 2. Dimensions and electrical performance requirements (Primarybatteries-Part 2. Phys-

icalandelectricalspecifications)

IEC 60068-2-6 Environmental testing - Part 2-6. Test Fc vibration (sine)
[Environmentaltesting-Part 2-6.

Tests-TestFc. Vibrations (sinusoidal)]

IEC 60068-2-27 Environmental testing - Part 2-27. Impact test Ea
(Environmental testing - Part 2-27.

Tests - Test Ea and guidance. Shock)

Environmental testing IEC 60068-2-31 2-31. Test Ec rough handling impact (mainly type
apparatus for sample)

(IEC 60068-2-31, Environmental testing - Part 2-31. Tests - Test Ec. Rough handling shocks,
primarily for

equipment - type specimens)

3 Terms and Definitions

IEC 60086-1:2011 defines the following terms and definitions apply to this document.

3.1

Battery battery

Fitted with means (e.g. a housing, extreme protection flag and device) or a plurality of cells
required for use.

3.2

Button cell button battery

Small round cells, which is smaller than the diameter of the overall height dimension; cell
shape meet IEC 60086-2:2011 of FIGS. 3 and 4.

3.3

[Monomer] cells cell

Chemical energy directly to electrical energy into a power source, is an electrode, an
electrolyte, the vessel, the extreme, the composition of the isolation layer and usually
substantially

Functional unit.

3.4

A cylindrical battery cylindrical (cell or battery)

The total height is equal to or larger than the diameter of the cylindrical shape of the battery
or cell.

3.5

Battery explosion battery explosion

Cells from any part of the solid matter instantly ejected from the battery than 25cm.

3.6

Damage harm

Damage to human health.

3.7

Dangerous hazard

Potential source of injury.

3.8

Specifies intended use

Information is provided by the supplier of the use of products, processes and services.

3.9

Leak leakage

Electrolyte, gas or other substances accidentally escape from the cell.

3.10

Nominal voltage nominal voltage

V_n (symbol)

Approximation of an appropriate voltage used to identify certain cell or electrochemical system.

3.11

Primary batteries primary cell or battery

By not charging the battery design.

3.12

Rectangular battery prismatic cell or battery

Each plane at right angles to the plane of the parallelepiped shape or the battery cell.

3.13

Protection protective device

Such as a fuse, diode or other electrical or electronic current limiter for the current in the circuit block.

3.14