



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

GB/T 8897.1-2021

Primary batteries - Part 1: General

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Foreword

GB/T 8897 Primary Batteries consists of the following 5 parts.

- Part 1.General;
- Part 2.Physical and Electrical Specifications;
- Part 3.Watch Batteries;
- Part 4.Safety of Lithium Batteries;
- Part 5.Safety of Batteries with Aqueous Electrolyte.

This Part is Part 1 of GB/T 8897.

This Part was drafted as per the rules specified in GB/T 1.1-2009.

This Part replaced GB/T 8897.1-2013 Primary Batteries - Part 1.General. Compared with GB/T 8897.1-2013, the major technical changes of this Part are as follows.

- Modify the definition of coin/button cell battery to better handle the problem of coin cell being swallowed by mistake (see 3.3 and 3.6 of this Edition; 3.3 of 2013 Edition);
- Move the performance testing general rules from Annex E to main text 5.1 (see 5.1 of

this Edition; Annex E of 2013 Edition);

--- Modify the number of inspection batteries, the number of inspection batteries is changed from 9 to 8, and the average value of the result calculation is not excluded (see 5.3 of this Edition; 5.3 of 2013 Edition);

--- Modify the relative humidity conditions of non-P system batteries in Table 3 (see 6.1 of this Edition; 6.1 of 2013 Edition);

--- Increase the standard discharge voltage of Y chemical system and W chemical system battery (see Annex G.3 of this Edition);

--- Modify the order of the annex to make it consistent with the order of appearance in the main text, and added explanatory text at the position where the main text appeared for the first time;

--- Add Annex D (informative) warning sign (see Annex D of this Edition);

--- Add Annex E (normative) on the packaging and child-resistant disassembly requirements

of coin batteries (see Annex E of this Edition);

---Add Annex F (informative) the use of the warning sign "keep away from children" (see Annex F of this Edition).

This Part uses redrafting method to modify and adopt IEC 60086-1.2015 Primary Batteries

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Part 1.General.

The technical differences and the causes between this Part and IEC 60086-1.2015 are as follows.

--- Regarding normative references, this Part has made adjustments with technical differences to adapt to the technical conditions of China. The adjustments are concentrated in Clause 2 "Normative References". The specific adjustments are as follows.

? Use GB/T 8897.2-2021 that modifies and adopts the international standard to replace IEC 60086-2.2015;

? Use GB/T 8897.3-2021 that modifies and adopts the international standard to

replace IEC 66086-3:2016;

? Delete IEC 60086-4:2014 and IEC 60086-5:2016.

--- Add the definition of explosion (see 3.23 of this Edition).

--- Modify the maximum open-circuit voltage in the F-system battery from 1.83V to 1.90V (see 4.1.4 of this Edition).

--- Modify the marking requirements, so as to meet the requirements of China's relevant regulations and standards (see 4.1.6 of this Edition).

--- Modify the requirements for the battery listed in the national standard, so as to comply with the actual conditions of China [see c) and d) of Annex A of this Edition].

--- Add Annex D (informative) warning sign (see Annex D of this Edition);

--- Add Annex E (normative) on the packaging and child-resistant disassembly requirements

of coin batteries (see Annex E of this Edition);

---Add Annex F (informative) the use of the warning sign "keep away from children" (see Annex F of this Edition).

This Part was proposed by China National Light Industry Council.

This Part shall be under the jurisdiction of National Technical Committee on Primary Battery of Standardization Administration of China (SAC/TC 176).

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The historical editions replaced by this Standard are as follows.

--- GB/T 8897-1988, GB/T 8897-1996;

--- GB/T 8897.1-2003, GB/T 8897.1-2008, GB/T 8897.1-2013.

Primary Batteries - Part 1.General

1 Scope

This Part of GB/T 8897 is intended to standardize primary batteries with respect to electrochemical system, dimensions, nomenclature, terminal configurations, markings, test methods, performance, reliability and environmental aspects. As a primary battery classification tool, electrochemical systems are also standardized with respect to system letter, electrodes, electrolyte, nominal and maximum open-circuit voltage.

2 Normative References

The following documents are essential to the application of this document. For the dated documents, only the versions with the dates indicated are applicable to this document; for the undated documents, only the latest version (including all the amendments) is applicable to this document.