

## Test Report

No.: CANEC24025829637

Date: Jan 02, 2025

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Client Name:

Client Address:

Sample Name: button alkaline zinc-manganese battery

Model No.: LR44(AG13)

Client Ref. Information: LR521, LR621, LR726, LR41, LR626, LR954, LR921, LR927, LR1120, LR936, LR1130, LR721, LR43, LR44 AG0, AG1, AG2, AG3, AG4, AG5, AG6, AG7, AG8, AG9, AG10, AG11, AG12, AG13, L1131, 27A (12V), 23A (12V), 2LR41 2LR44, 3LR41, 3LR44, 4LR41, 4LR44, 6LR44, 9LR44

Sample Type: Portable non-zinc-air button cell

The above sample(s) and information were provided by the client.

SGS Job No.: GZP24-036885

Sample Receiving Date: Nov 19, 2024

Testing Period: Nov 19, 2024 ~ Dec 13, 2024

Test Requested: Select test(s) as requested by the client.

Test Method(s): Please refer to next page(s).

Test Result(s): Please refer to next page(s).

Test Requirement	Conclusion
Cadmium ,Lead and Mercury Content in Batteries	See Results
Annex I of Regulation (EU) 2023/1542– Heavy Metals Content in batteries and waste batteries	Pass

Signed for and on behalf of  
SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch

Violet Shi

Violet Shi

Approved Signatory

scan to see the report



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SGS-CSTC Standards Technical Services Co., Ltd.  
Guangzhou Branch Technical Services Laboratory

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## Test Result(s):

### Test Part Description:

SN ID	Sample No.	SGS Sample ID	Description
SN1	A1	CAN24-0258296-0001.C001	Button cell

### Remarks:

- (1) 1 mg/kg = 1 ppm = 0.0001%
- (2) MDL = Method Detection Limit
- (3) ND = Not Detected (< MDL)
- (4) "-" = Not Regulated

## Cadmium ,Lead and Mercury Content in Batteries

**Test Method:** With reference to GB/T 20155-2018 method III (for lead and cadmium) and method II (for mercury).

Test Item(s)	Unit(s)	MDL	A1
Mercury(Hg)	mg/kg	0.05	ND
Cadmium(Cd)	mg/kg	1	ND
Lead(Pb)	mg/kg	5	ND

### Notes:

- (1) Results shown are of total weight of the battery sample.

## Annex I of Regulation (EU) 2023/1542– Heavy Metals Content in batteries and waste batteries

**Test Method:** SGS In House Method (GZTC CHEM-TOP-068), analysis was performed by ICP-OES or AAS or Hg-analyzer.

Test Item(s)	Limit	Unit(s)	MDL	A1
Lead(Pb)	0.01	%	0.0010	ND
Cadmium(Cd)	0.002	%	0.0010	ND
Mercury(Hg)	0.0005	%	0.0001	ND
<b>Conclusion</b>	<b>Pass</b>			

### Notes:

- (1) Restriction on substances

Column 1 Designation of the substance or group of substances	Column 2 Conditions of restriction
1. Mercury CAS No 7439-97-6 EC No 231-106-7 and its compounds	Batteries, whether or not incorporated into appliances, light means of transport or other vehicles, shall not contain more than 0,0005 % of mercury (expressed as mercury metal) by weight
2. Cadmium CAS No 7440-43-9 EC No 231-152-8 and its compounds	Portable batteries, whether or not incorporated into appliances, light means of transport or other vehicles, shall not contain more than 0,002 % of cadmium (expressed as cadmium metal) by weight



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<p>3. Lead CAS No 7439-92-1 EC No 231-100-4 and its compounds</p>	<p>1. From 18 August 2024, portable batteries, whether or not incorporated into appliances, shall not contain more than 0,01 % of lead (expressed as lead metal) by weight. 2. The restriction set out in point 1 shall not apply to portable zinc-air button cells until 18 August 2028.</p>
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(2) According to the EU New Battery Regulation (EU) 2023/1542, portable batteries (non portable zinc-air button cells) containing between 0,004 %-0.01 % lead, shall be marked with the chemical symbol for the metal concerned: Pb.

(3) Method(s) is/are not accredited by CNAS.

Unless otherwise stated, the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule ( $w=0$ ) stated in ILAC-G8:09/2019.



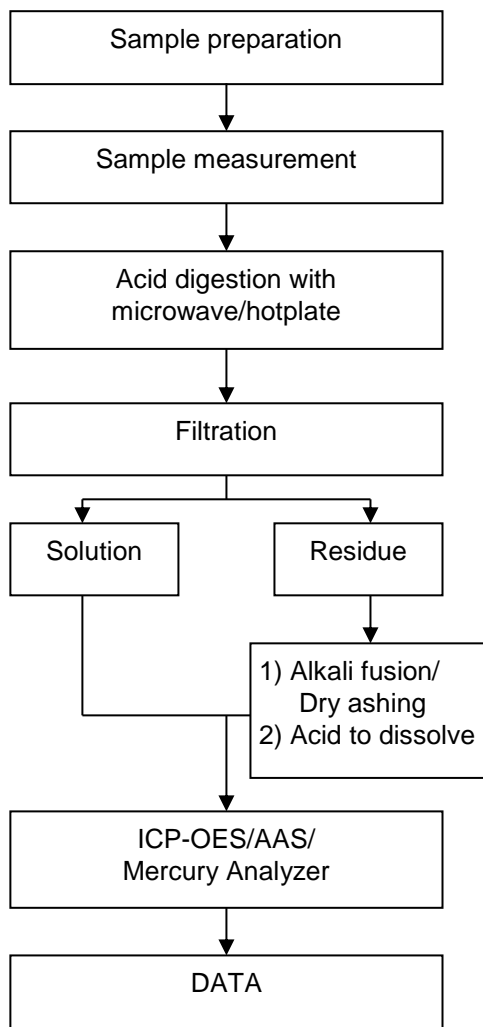
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## Battery Testing Flow Chart





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Sample Photo:



SGS authenticate the photo on original report only

\*\*\* End of Report \*\*\*



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