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Test Report

Client	:	Highstar Sodium Battery(Guangdong)Co., Ltd.
Address	:	No.8 Chuyun Street, Baiyun District, Guangzhou, Guangdong, China

The following sample(s) and sample information was/were submitted and identified by/on the behalf of the client

Sample Name	:	Sodium-ion Battery
Model/P.O. No.	:	NaCP71173208-160
Manufacturer	:	Highstar Sodium Battery(Guangdong)Co., Ltd.
Received Date	:	Feb 25, 2026
Test Period	:	Feb 25, 2026~Mar 06, 2026
Test Requested	:	EU RoHS 2011/65/EU and 2015/863/EU

Conclusion		
-	Lead(Pb), Cadmium(Cd), Mercury(Hg), Hexavalent Chromium(Cr^{6+})	PASS
-	Polybromobiphenyls (PBBs) & Polybromodiphenyl ethers (PBDEs)	PASS
-	DBP, BBP, DEHP, DIBP	PASS

For Further Details, Please Refer To the Following Page(s)

Approved by:

Date: Mar 10, 2026

SHENZHEN TIANSU CALIBRATION AND TESTING CO., LTD Inspection & Testing Services

ShenZhen Tiansu Calibration and Testing Co., Ltd.
Add: Building 1/4, No.2, Jinlong Road, Longgang District, Shenzhen, Guangdong, China. Post Code: 518116
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Test Method

Test Item(s)	Test Method	Equipment	MDL
Pb, Cd, Hg, Cr, Br	IEC 62321-3-1:2013	XRF	5mg/kg
Pb, Cd	IEC 62321-5:2013	ICP-OES	5mg/kg
Hg	IEC 62321-4:2013+AMD1:2017	ICP-OES	5mg/kg
Cr^{6+}	IEC 62321-7-2:2017	UV-Vis	5mg/kg
	IEC 62321-7-1:2015		0.10μg/cm^2
PBBs & PBDEs	IEC 62321-6:2015	GC-MS	5mg/kg
DBP, BBP, DEHP, DIBP	IEC 62321-8:2017	GC-MS	30mg/kg

Test Result(s)

- Screening test results

Test items	1	2	3	4	5	6	7	8
Pb	P	P	D	P	P	P	P	P
Cd	P	P	P	P	P	P	P	P
Hg	P	P	P	P	P	P	P	P
Cr	P	P	P	P	P	P	P	P
Br	D	P	/	P	P	P	P	P
Conclusion	D	P	D	P	P	P	P	P

Test items	9	10	11	12	13	14	15	16	17
Pb	P	D	P	P	P	P	P	D	D
Cd	P	P	P	P	P	P	P	P	P
Hg	P	P	P	P	P	P	P	P	P
Cr	P	P	P	P	P	P	P	P	P
Br	P	/	/	P	P	P	P	/	/
Conclusion	P	D	P	P	P	P	P	D	D

Note:

- It is the result on total Br while testing PBBs and PBDEs by XRF. It is the result on total Cr while testing Hexavalent Chromium by XRF.

- Results are obtained by XRF for primary screening, and chemical testing by ICP (for Cd, Pb, Hg), UV-Vis (for Cr(VI)) and GCMS (for PBBs, PBDEs) is recommended to be performed, if the concentration exceeds the below warning value according to IEC 62321-3-1:2013 (unit: mg/kg)

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Element	Polymer	Metal	Composite Materials
Cd	P≤70-3σ＜D＜130+3σ≤F	P≤70-3σ＜D＜130+3σ≤F	P≤50-3σ＜D＜150+3σ≤F
Pb	P≤700-3σ＜D＜1300+3σ≤F	P≤700-3σ＜D＜1300+3σ≤F	P≤500-3σ＜D＜1500+3σ≤F
Hg	P≤700-3σ＜D＜1300+3σ≤F	P≤700-3σ＜D＜1300+3σ≤F	P≤500-3σ＜D＜1500+3σ≤F
Br	P≤300-3σ＜D	/	P≤250-3σ＜F
Cr	P≤700-3σ＜D	P≤700-3σ＜D	P≤500-3σ＜F

- P=PASS, F=FAIL, D=DETECTED
- mg/kg = ppm = 0.0001%, /= Not Applicable

- Chemical test results:

Test results of Pb, Cd, Hg and Cr^{6+}

Test Item(s)	MDL	Result(s) (mg/kg)				Limit (mg/kg)
		3	10	16	17	
Lead(Pb)	5mg/kg	N.D.	N.D.	N.D.	N.D.	1000
Cadmium(Cd)	5mg/kg	N.D.	N.D.	N.D.	N.D.	100
Mercury(Hg)	5mg/kg	N.D.	N.D.	N.D.	N.D.	1000
Hexavalent Chromium(Cr^{6+})#1	5mg/kg	/	/	/		1000
Hexavalent Chromium(Cr^{6+})#2	0.10μg/cm^2	N.D.	N.D.	N.D.	N.D.	/

Note:

- mg/kg=ppm=parts per million;
- N.D.=Not Detected (<MDL); MDL=method detection limit;
- #1: For non-metal materials test.
- #2: For metal materials test:
  "Positive" indicates Cr^{6+} in a sample is detected above 0.13μg/cm^2;
  "Negative" indicates Cr^{6+} in a sample is detected below 0.10μg/cm^2;

Test results of PBBs and PBDEs

Test Item(s)	MDL (mg/kg)	Result(s) (mg/kg)	Limit (mg/kg)
		1	
Monobromobiphenyl	5	N.D.	/
Dibromobiphenyl	5	N.D.	/
Tribromobiphenyl	5	N.D.	/
Tetrabromobiphenyl	5	N.D.	/
Pentabromobiphenyl	5	N.D.	/
Hexabromobiphenyl	5	N.D.	/
Heptabromobiphenyl	5	N.D.	/
Octabromobiphenyl	5	N.D.	/
Nonabromobiphenyl	5	N.D.	/
Decabromodiphenyl	5	N.D.	/
Polybromobiphenyl(PBBs)	/	**N.D.**	**1000**
Monobromobiphenyl ether	5	N.D.	/
Bibromobiphenyl ether	5	N.D.	/
Tribromobiphenyl ether	5	N.D.	/
Tetrabromobiphenyl ether	5	N.D.	/
Pentabromobiphenyl ether	5	N.D.	/
Hexabromobiphenyl ether	5	N.D.	/
Heptabromobiphenyl ether	5	N.D.	/
Octabromobiphenyl ether	5	N.D.	/
Nonabromobiphenyl ether	5	N.D.	/
Decabromodiphenyl ether	5	N.D.	/
Polybromodiphenyl ether(PBDEs)	/	**N.D.**	**1000**

Note:

- mg/kg=ppm=parts per million;
- N.D.=Not Detected (<MDL);
- MDL=method detection limit.

Test results of Phthalates

Test Item(s)	MDL	Result(s) (mg/kg)				Limit (mg/kg)
		1	2	4	5	
Dibutyl phthalate(DBP)	30mg/kg	N.D.	N.D.	N.D.	N.D.	1000
Butyl benzyl phthalate(BBP)	30mg/kg	N.D.	N.D.	N.D.	N.D.	1000
Di (2-ethylhexyl) phthalate(DEHP)	30mg/kg	N.D.	N.D.	N.D.	N.D.	1000
Diisobutyl phthalate (DIBP)	30mg/kg	N.D.	N.D.	N.D.	N.D.	1000

Test Item(s)	MDL	Result(s) (mg/kg)				Limit (mg/kg)
		6	7	8	9	
Dibutyl phthalate(DBP)	30mg/kg	N.D.	N.D.	N.D.	N.D.	1000
Butyl benzyl phthalate(BBP)	30mg/kg	N.D.	N.D.	N.D.	N.D.	1000
Di (2-ethylhexyl) phthalate(DEHP)	30mg/kg	N.D.	N.D.	N.D.	N.D.	1000
Diisobutyl phthalate (DIBP)	30mg/kg	N.D.	N.D.	N.D.	N.D.	1000

Test Item(s)	MDL	Result(s) (mg/kg)				Limit (mg/kg)
		12	13	14	15	
Dibutyl phthalate(DBP)	30mg/kg	N.D.	N.D.	N.D.	N.D.	1000
Butyl benzyl phthalate(BBP)	30mg/kg	N.D.	N.D.	N.D.	N.D.	1000
Di (2-ethylhexyl) phthalate(DEHP)	30mg/kg	N.D.	N.D.	N.D.	N.D.	1000
Diisobutyl phthalate (DIBP)	30mg/kg	N.D.	N.D.	N.D.	N.D.	1000

Note:

- mg/kg=ppm=parts per million;
- N.D.=Not Detected (<MDL);
- MDL=method detection limit.

Test components:

1	Black plastic	2	Blue plastic film
3	Silver metal	4	Yellow tape
5	Transparent plastic	6	Transparent plastic
7	White plastic diaphragm	8	Positive electrode powder
9	Negative electrode powder	10	Silver metal
11	Silver metal	12	Black plastic
13	Blue plastic	14	White plastic
15	Black plastic	16	Silver metal
17	Aluminum foil		

Chemical Test Process

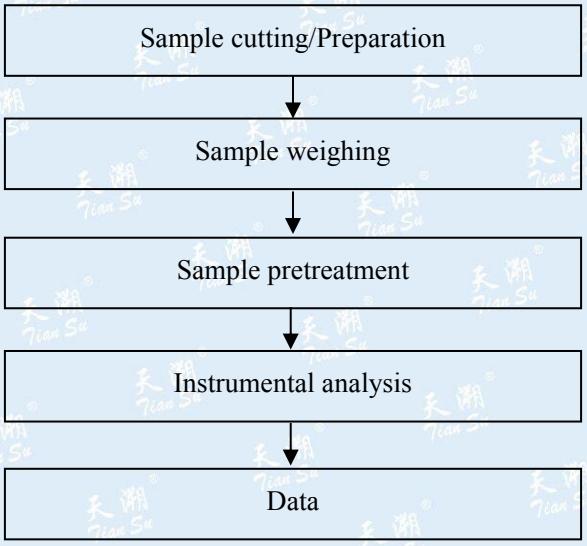
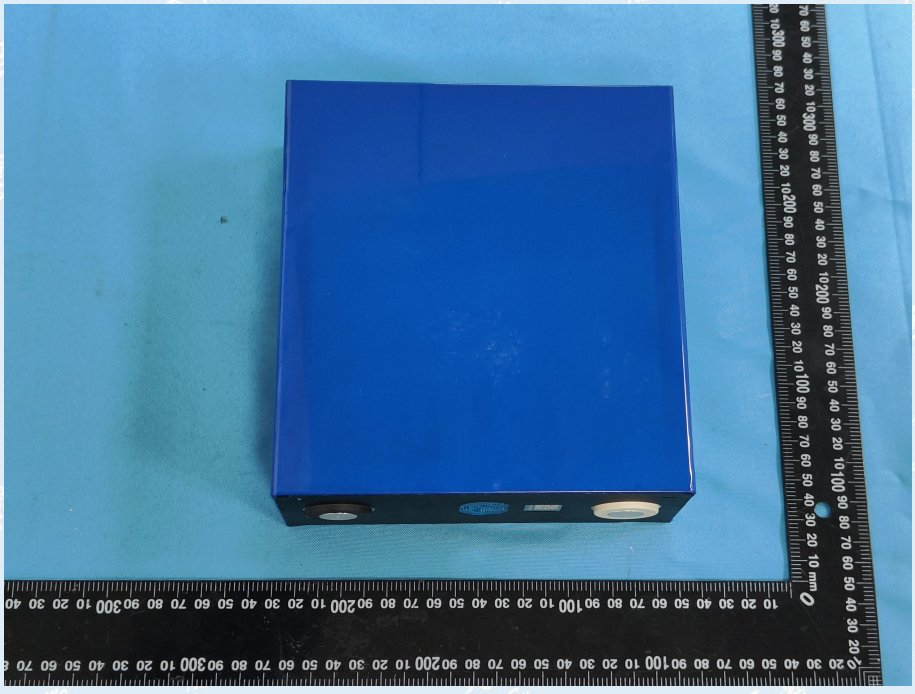


Photo of the sample



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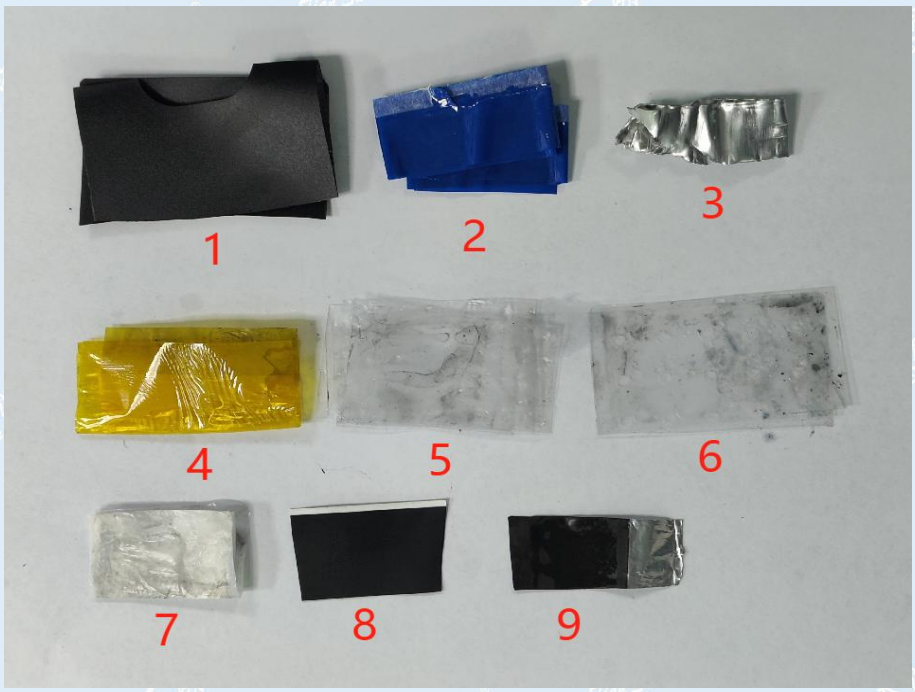

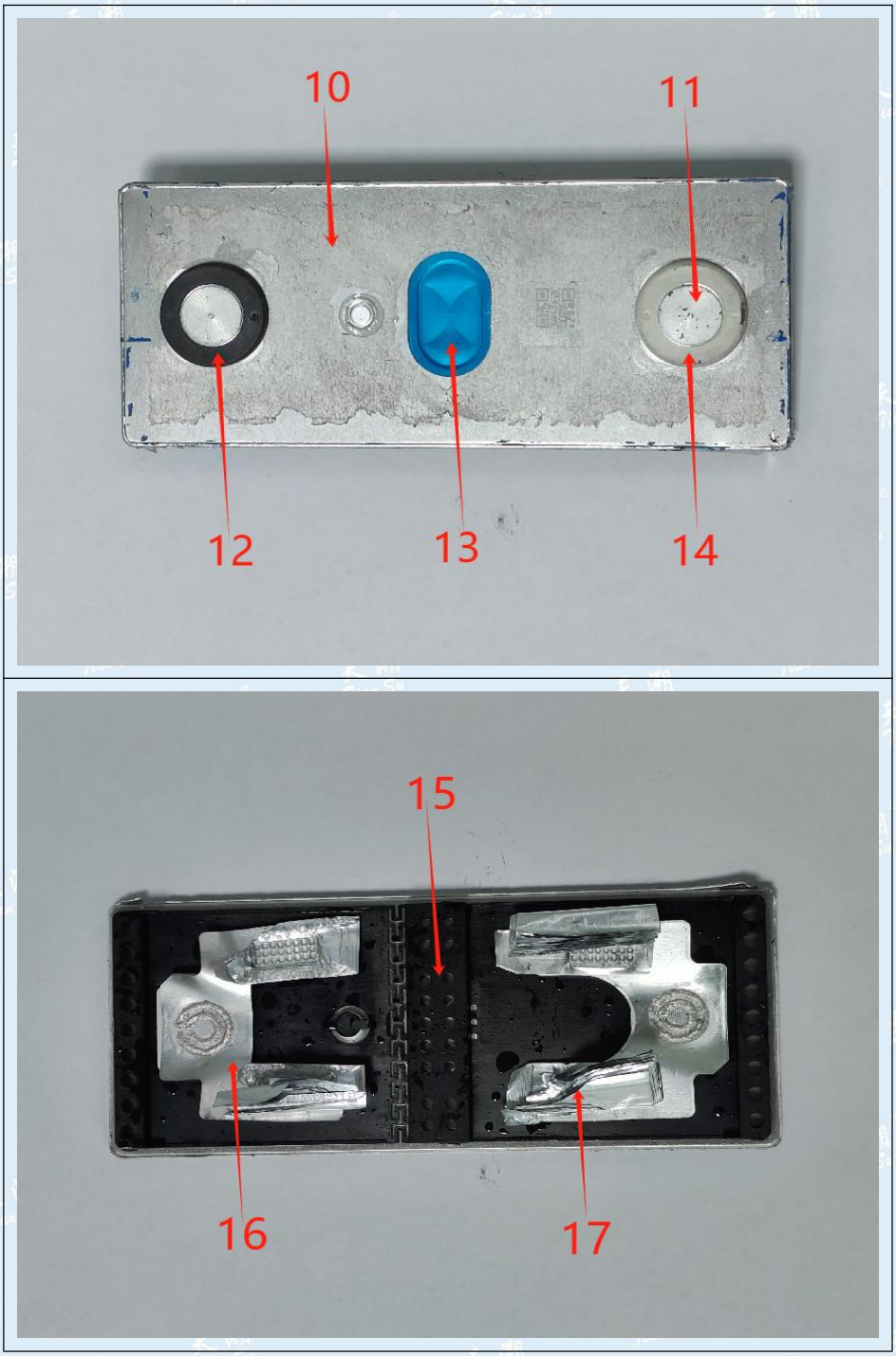

********** End of report **********

This report is invalid without the Special Seal of Tiansu. This report shall not be altered, increased or deleted. The results shown in this report refer only to the sample(s) tested.