

# Test Report

No.: CANEC23009889811

Date: Sep 22, 2023

Page 1 of 11

Client Name: GUANGZHOU TIANXIN PHOTOELECTRIC CO.,LTD

Client Address: #15-1, JINGU ROAD SOUTH,XIUTANG,HUADONG TOWN,HUADU DISTRICT,GUANGZHOU

Sample Name: High power density LED with copper substrate

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

SGS Job No.: GZP23-013561

Sample Receiving Date: Sep 13, 2023

Testing Period: Sep 13, 2023 ~ Sep 21, 2023

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
EU RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU- Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBBs), Polybrominated diphenyl ethers (PBDEs), Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP)	Pass
EU RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU- Lead, Mercury, Cadmium and Hexavalent chromium	Pass

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

Jessie Li

Jessie-JX Li  
Approved Signatory

scan to see the report



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No.: CANEC23009889811

Date: Sep 22, 2023

Page 2 of 11

## Test Result(s):

### Test Part Description

SN ID	Sample No.	SGS Sample ID	Description
SN1	A18	CAN23-0098898-0001.C018	Colorless transparent glass
SN2	A19	CAN23-0098898-0001.C019	Dk-grey material
SN3	A20	CAN23-0098898-0001.C020	Copper-colored metal sheet
SN4	A21	CAN23-0098898-0001.C021	Silvery metal pin
SN5	A22	CAN23-0098898-0001.C022	Black paste

### Remarks:

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

**EU RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU- Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBBs), Polybrominated diphenyl ethers (PBDEs), Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP)**

Test Method: With reference to IEC 62321-4:2013+AMD1:2017, IEC 62321-5:2013, IEC 62321-7-2:2017, IEC 62321-6:2015 and IEC 62321-8:2017, analysis was performed by ICP-OES, UV-Vis and GC-MS.

Test Item(s)	Limit	Unit(s)	MDL	A18	A19
Cadmium(Cd)	100	mg/kg	2	ND	ND
Lead (Pb)	1000	mg/kg	2	ND	5
Mercury (Hg)	1000	mg/kg	2	ND	ND
Hexavalent Chromium (Cr(VI))	1000	mg/kg	8	ND	ND
Polybromobiphenyl (PBBs)	1000	mg/kg	-	ND	ND
Monobromobiphenyl (MonoBB)	-	mg/kg	5	ND	ND
Dibromobiphenyl (DiBB)	-	mg/kg	5	ND	ND
Tribromobiphenyl (TriBB)	-	mg/kg	5	ND	ND
Tetrabromobiphenyl (TetraBB)	-	mg/kg	5	ND	ND
Pentabromobiphenyl (PentaBB)	-	mg/kg	5	ND	ND
Hexabromobiphenyl (HexaBB)	-	mg/kg	5	ND	ND
Heptabromobiphenyl (HeptaBB)	-	mg/kg	5	ND	ND
Octabromobiphenyl (OctaBB)	-	mg/kg	5	ND	ND
Nonabromobiphenyl (NonaBB)	-	mg/kg	5	ND	ND
Decabromobiphenyl (DecaBB)	-	mg/kg	5	ND	ND
Polybromodiphenyl ether(PBDEs)	1000	mg/kg	-	ND	ND
Monobromodiphenylether (MonoBDE)	-	mg/kg	5	ND	ND
Dibromodiphenylether (DiBDE)	-	mg/kg	5	ND	ND
Tribromodiphenylether (TriBDE)	-	mg/kg	5	ND	ND
Tetrabromodiphenylether (TetraBDE)	-	mg/kg	5	ND	ND
Pentabromodiphenylether (PentaBDE)	-	mg/kg	5	ND	ND
Hexabromodiphenylether (HexaBDE)	-	mg/kg	5	ND	ND
Heptabromodiphenylether (HeptaBDE)	-	mg/kg	5	ND	ND
Octabromodiphenylether (OctaBDE)	-	mg/kg	5	ND	ND



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# Test Report

No.: CANEC23009889811

Date: Sep 22, 2023

Page 3 of 11



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Unit(s)	MDL	A22
mg/kg	50	ND
mg/kg	50	ND

Directive (EU) 2015/863.

Apply to medical devices, including in vitro medical  
and industrial monitoring and control instruments,

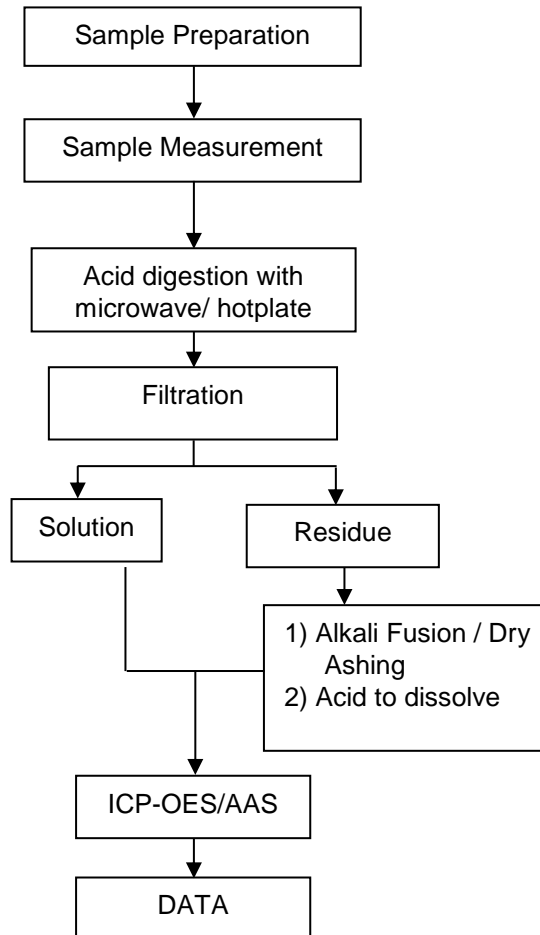
**to Directive 2011/65/EU- Lead, Mercury,**

AMD1:2017, IEC 62321-5:2013 and IEC 62321-7-  
P-OES and UV-Vis .

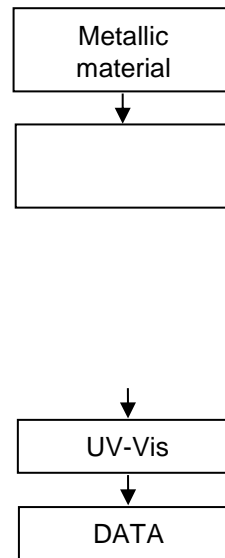
Unit(s)	MDL	A20	A21
mg/kg	2	ND	4
mg/kg	2	ND	168
mg/kg	2	ND	ND
µg/cm <sup>2</sup>	0.10	ND	ND

**Elements Testing Flow Chart**

These samples were dissolved totally by pre-conditioning method according to below flow chart.



**Hexavalent Chromium (Cr(VI)) Testing Flow Chart**



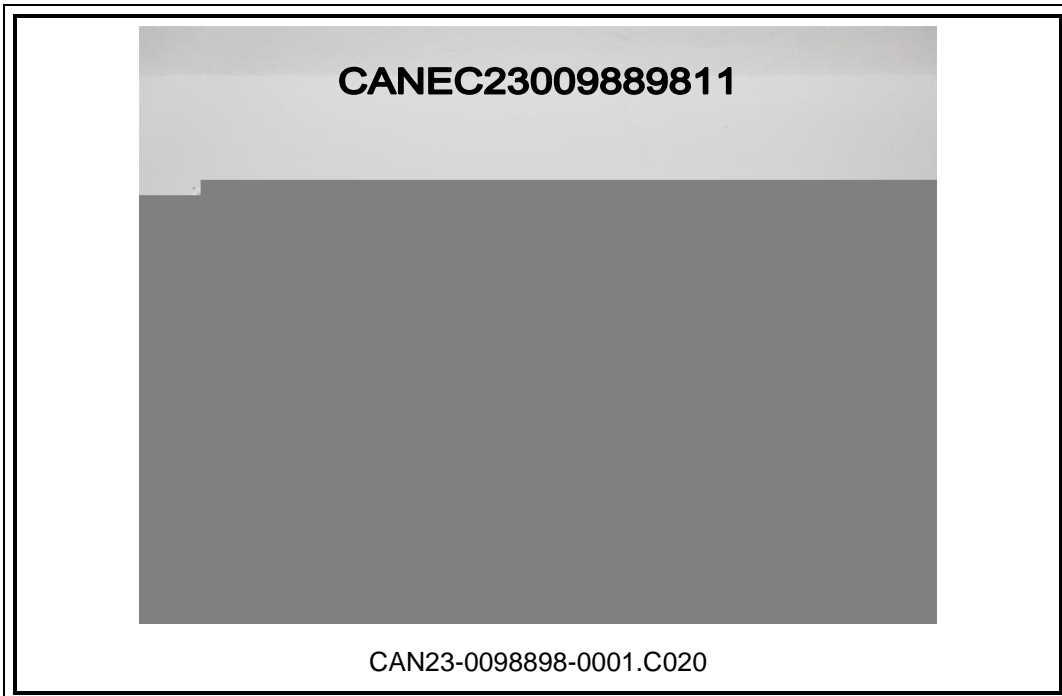


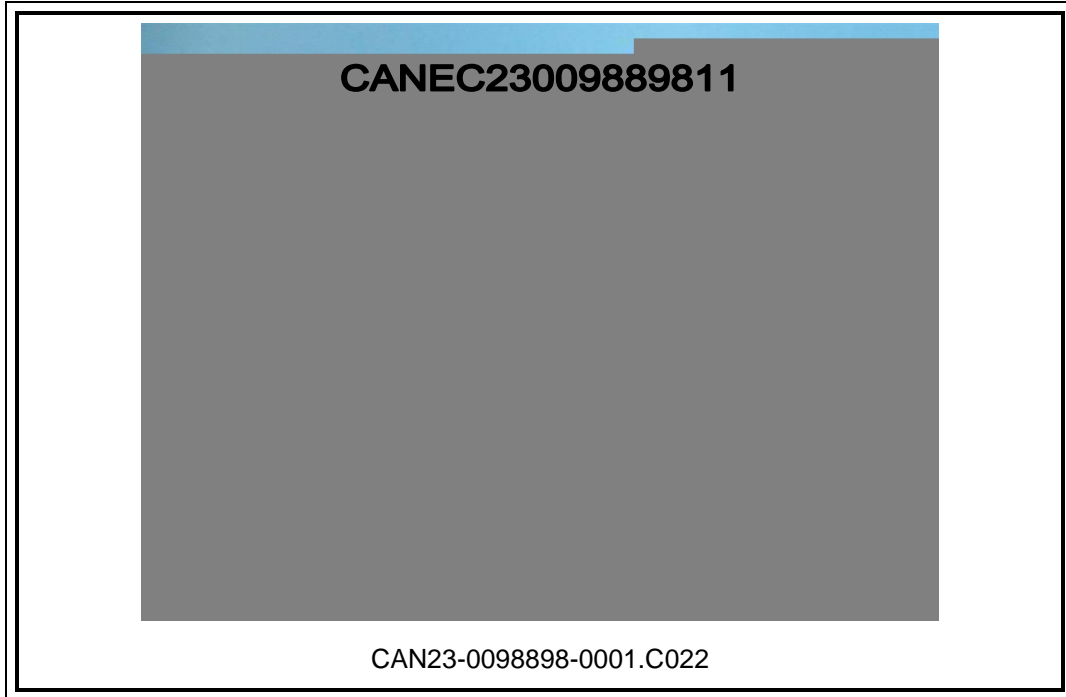
**Phthalates Testing Flow Chart**











SGS authenticate the photo on original report only  
\*\*\* End of Report \*\*\*

