



**CENTRE OF TESTING SERVICE
INTERNATIONAL**

OPERATE ACCORDING TO ISO/IEC 17025

TEST REPORT

RoHS 2011/65/EU

Test Report Number : CNB3150814-03854-C



CTS (Ningbo) Testing Service Technology Co., Ltd.

Fl.2 South Huoju Building, No.181 Canghai Rd., Jiangdong High-tech Park, Ningbo China

PHONE +86-574-87912121 FAX +86-574-87907993



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1 General Information

1.1 Application Details

Name : JIASHAN SHENGGUANG ELECTRONICS CO., LTD
Address : NO.1919, JIASHAN DADAO ROAD, JIASHAN CITY, ZHEJIANG,
CHINA
Contact : /
Telephone : /
Fax : /
Mobile telephone : /
Email : /

1.2 Manufacturer & Buyer

Manufacturer name : JIASHAN SHENGGUANG ELECTRONICS CO., LTD
Address : NO.1919, JIASHAN DADAO ROAD, JIASHAN CITY, ZHEJIANG,
CHINA
Contact : /
Telephone : /
Fax : /
Mobile telephone : /
Email : /
Buyer name : /

1.3 Description of the Test Item

Sample name : BICYCLE LIGHT
Model No. : JY-1L, JY-2L-A, JY-3L, JY-529A, JY-5050, JY-397, JY-7043,
JY-7015, JY-7040, JY-6018, JY-6025, JY-8010-3K, JY-591,
JY-1006, JY-189, JY-004T
Brand name : /
Condition of sample(s) : EFFECTIVE

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Fl.2 south Huoju Building, No.181 canghai Rd., Jiangdong High-tech Park Ningbo China

Tel: +86-574-87912121 (16 lines)

Fax: +86-574-87907993

Complaint line: +86-574-87908003

E-mail: cts@cts-lab.com

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2 Test results

2.1 Sample Receiving Date

Aug. 14, 2015

2.2 Testing Period

Aug. 14, 2015 to Aug. 20, 2015

2.3 Test Requested

In accordance with the RoHS Directive 2011/65/EU Annex II.

2.4 Test Method

1. X-Ray Fluorescence Spectrometry method in reference to IEC 62321-3-1:2013.
2. Chemical test method

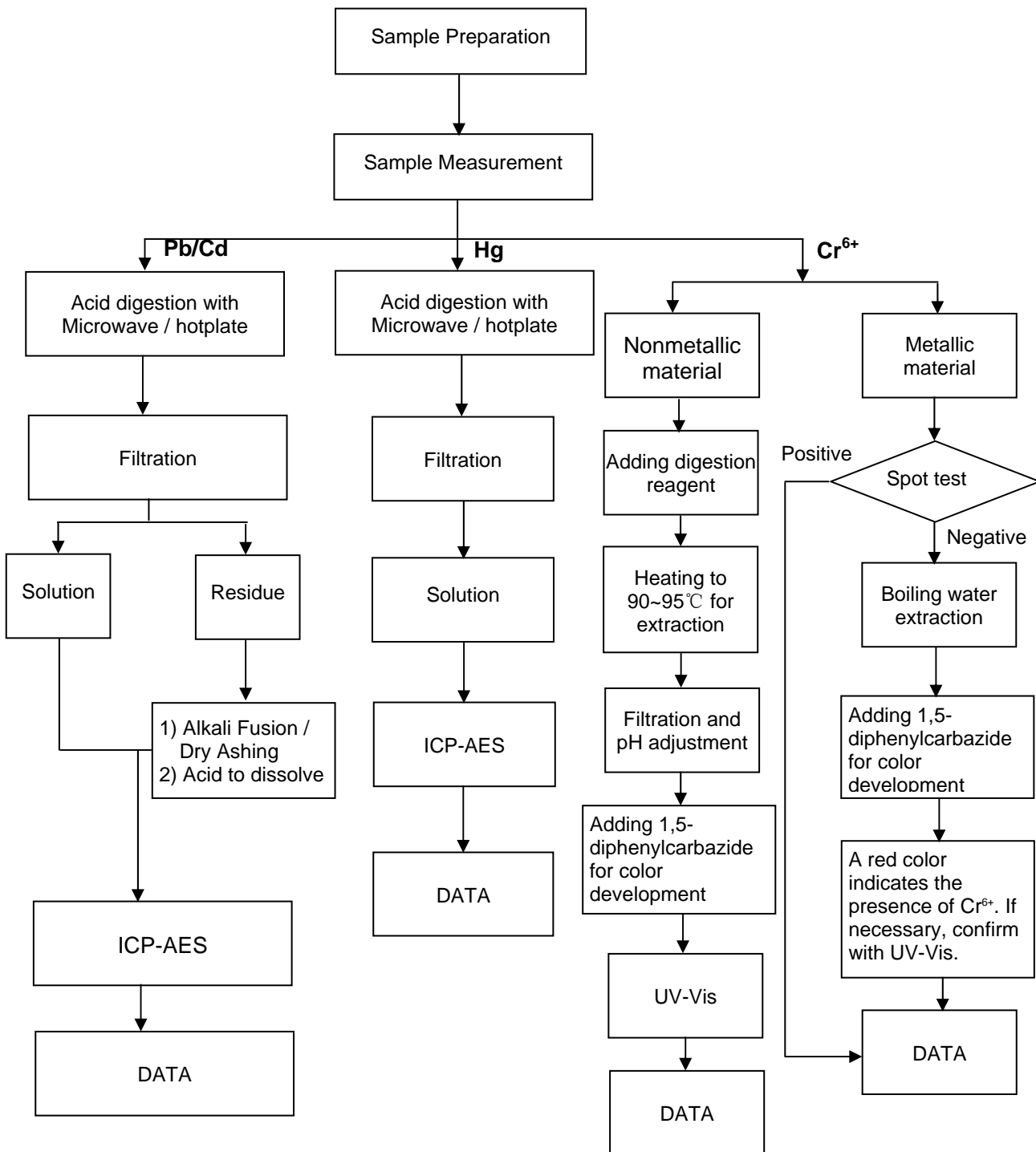
Test Item(s)	Test Method	Test Instrument
Lead (Pb)	With reference to IEC 62321-5:2013	ICP-AES
Cadmium (Cd)	With reference to IEC 62321-5:2013	ICP-AES
Mercury (Hg)	With reference to IEC 62321-4:2013	ICP-AES
Chromium VI (Cr VI)	With reference to IEC 62321:2008	UV-Vis
PBBs	With reference to IEC 62321:2008	GC-MS
PBDEs		

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2.5 Chemical Test Method Flow Chart



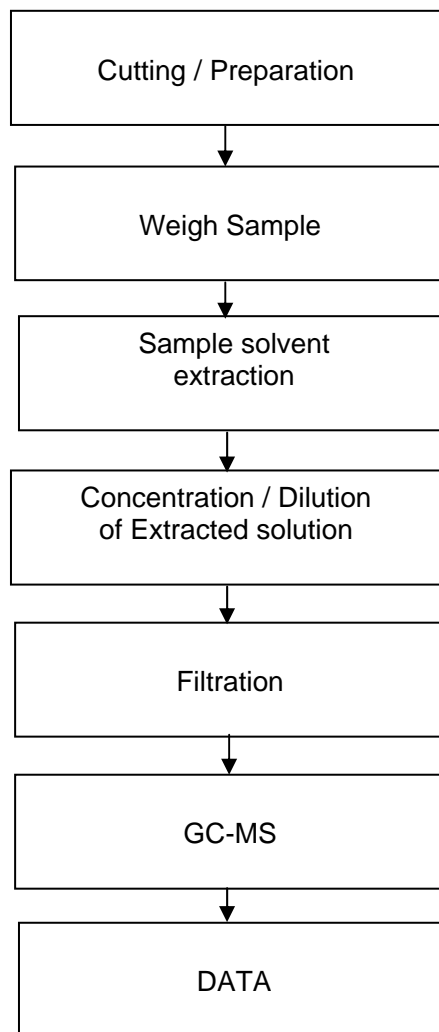
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PBBs / PBDEs



2.6 Conclusion

Based on the performed tests on submitted samples, the results of Lead, Cadmium, Mercury, Hexavalent chromium, Polybrominated biphenyls (PBB), Polybrominated diphenyl ethers (PBDE) comply with the limits as set by RoHS Directive 2011/65/EU Annex II; recasting 2002/95/EC.

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2.7 Test Results

2.7.1 Test results of all parts by EDXRF and chemical confirmation

No.	Sample Description		Results					Chemical Confirmation Result (Unit=mg/kg)
			Pb	Cd	Hg	Cr	Br	
1	Black metal screw		P	P	P	P	/	/
2	Black metal nut		P	P	P	P	/	/
3	Black plastic cover		P	P	P	P	P	/
4	Black soft plastic pad		P	P	P	P	P	/
5	Black plastic knob		P	P	P	P	P	/
6	Red translucent plastic		P	P	P	P	P	/
7	Black soft plastic with a red button		P	P	P	P	P	/
8	Black plastic ring		P	P	P	P	P	/
9	Red cable jacket		P	P	P	P	P	/
10	Black cable jacket		P	P	P	P	P	/
11	Silvery wire core		P	P	P	P	/	/
12	LED	Transparent body	P	P	P	P	P	/
13		Pin	P	P	P	P	/	/
14	PCB	Base material	P	P	P	P	P	/
15		Copper foil	P	P	P	P	/	/
16	Black epoxy resin		P	P	P	P	P	/
17	Chip resistor		X	P	P	P	P	Pb:2.7x10 ^{3*}
18	Silvery metal wafer of battery base		P	P	P	P	/	/
19	Aluminum electrolytic capacitor	Black plastic jacket with white printing	P	P	P	P	P	/
20		Silvery metal cover	P	P	P	P	/	/
21		Black rubber end closure	P	P	P	P	P	/
22		Pin	P	P	P	P	/	/
23		Capacitor anode film	P	P	P	P	P	/
24		Capacitor cathode film	P	P	P	P	P	/

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No.	Sample Description		Results					Chemical Confirmation Result (Unit=mg/kg)
			Pb	Cd	Hg	Cr	Br	
25	Aluminum electrolytic capacitor	Paper film	P	P	P	P	P	/
26	Copper metal		P	P	P	P	/	/
27	Chip capacitor		P	P	P	P	P	/
28	Chip audion		P	P	P	P	X	PBBs: N.D. PBDEs: N.D.
29	Chip resistor		X	P	P	P	P	Pb:1.1x10 ^{3*}
30	Silvery metal spring		P	P	P	P	/	/
31	Transparent plastic lens		P	P	P	P	P	/
32	Lockless switch	Black plastic	P	P	P	P	P	/
33		Silvery metal piece	P	P	P	P	/	/
34		Metal dome	P	P	P	P	/	/
35		Pin	P	P	P	P	/	/
36	Black plastic cap		P	P	P	P	P	/

Note : P = Below Limit (Pass)
 F = Over Limit (Fail)
 X = Inconclusive
 N.D. = not detected (less than MDL)
 1mg/kg=1ppm=0.0001%
 Negative = Absence of CrVI coating, Positive = Presence of CrVI coating;
 (The tested sample should be further verified by boiling-water-extraction method if the spot test result cannot be confirmed)
 Boiling-water-extraction:
 Negative = Absence of CrVI coating
 Positive = Presence of CrVI coating; The detected concentration in boiling-water-extraction solution is equal or greater than 0.02 mg/kg with 50cm² sample surface area.
 The test results only apply to the materials requested by applicant.
 *According to the declaration from client, the source of lead in the sample could be from the ceramic parts. Lead in electronic ceramic parts is exempted from the requirement of RoHS Directive (2011/65/EU Annex III).

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Remarks:

- (1) Results are obtained by EDXRF for primary screening, and further chemical testing is recommended to be performed, if the concentration exceeds the below warning value according to IEC 62321-3-1:2013.

Element	Polymer Materials	Metallic Materials	Electronic Materials
Pb	$P \leq 500 < X < 1300 \leq F$	$P \leq 500 < X < 1300 \leq F$	$P \leq 500 < X < 1300 \leq F$
Cd	$P \leq 50 < X < 130 \leq F$	$P \leq 50 < X < 130 \leq F$	$X < 130 \leq F$
Hg	$P \leq 500 < X < 1300 \leq F$	$P \leq 500 < X < 1300 \leq F$	$P \leq 500 < X < 1300 \leq F$
Cr	$P \leq 700 < X$	$P \leq 700 < X$	$P \leq 500 < X$
Br	$P \leq 250 < X$	/	$P \leq 250 < X$

- (2) Chemical Confirmation Result acceptable Limit:

Test items	Lead (Pb)	Cadmium (Cd)	Mercury (Hg)	Chromium (CrVI)	PBBs	PBDEs
Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Acceptable Limit	1000	100	1000	1000	1000	1000

Written by: *Jessie*

Inspected by: *Susei*

Approved by: *Jan*



End of Report

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3 Sample Reference Photo



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