



**CENTRE OF TESTING SERVICE
INTERNATIONAL**

OPERATE ACCORDING TO ISO/IEC 17025

TEST REPORT

RoHS 2011/65/EU

Test Report Number : CGZ3131018-03072-C



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The measurement results only apply to the submitted samples.
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1 General Information**1.1 Application Details**

Name :
Address :
Contact :
Telephone :
Fax :
Mobile telephone :
Email :

1.2 Manufacturer & Buyer

Manufacturer name :
Address :
Contact :
Telephone :
Fax :
Mobile telephone :
Email :
Buyer name :

1.3 Description of the Test Item

Sample name : Portable speaker
Model No. : TT-1028
Brand name : /
Condition of sample(s) : EFFECTIVE

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2 Test results

2.1 Sample Receiving Date

Oct. 18, 2013

2.2 Testing Period

Oct. 18, 2013 to Oct. 24, 2013

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: 2008.
2. Chemical test method

Test Item(s)	Test Method	Test Instrument
Lead (Pb)	With reference to IEC 62321:2008	ICP-AES
Cadmium (Cd)	With reference to IEC 62321:2008	ICP-AES
Mercury (Hg)	With reference to IEC 62321:2008	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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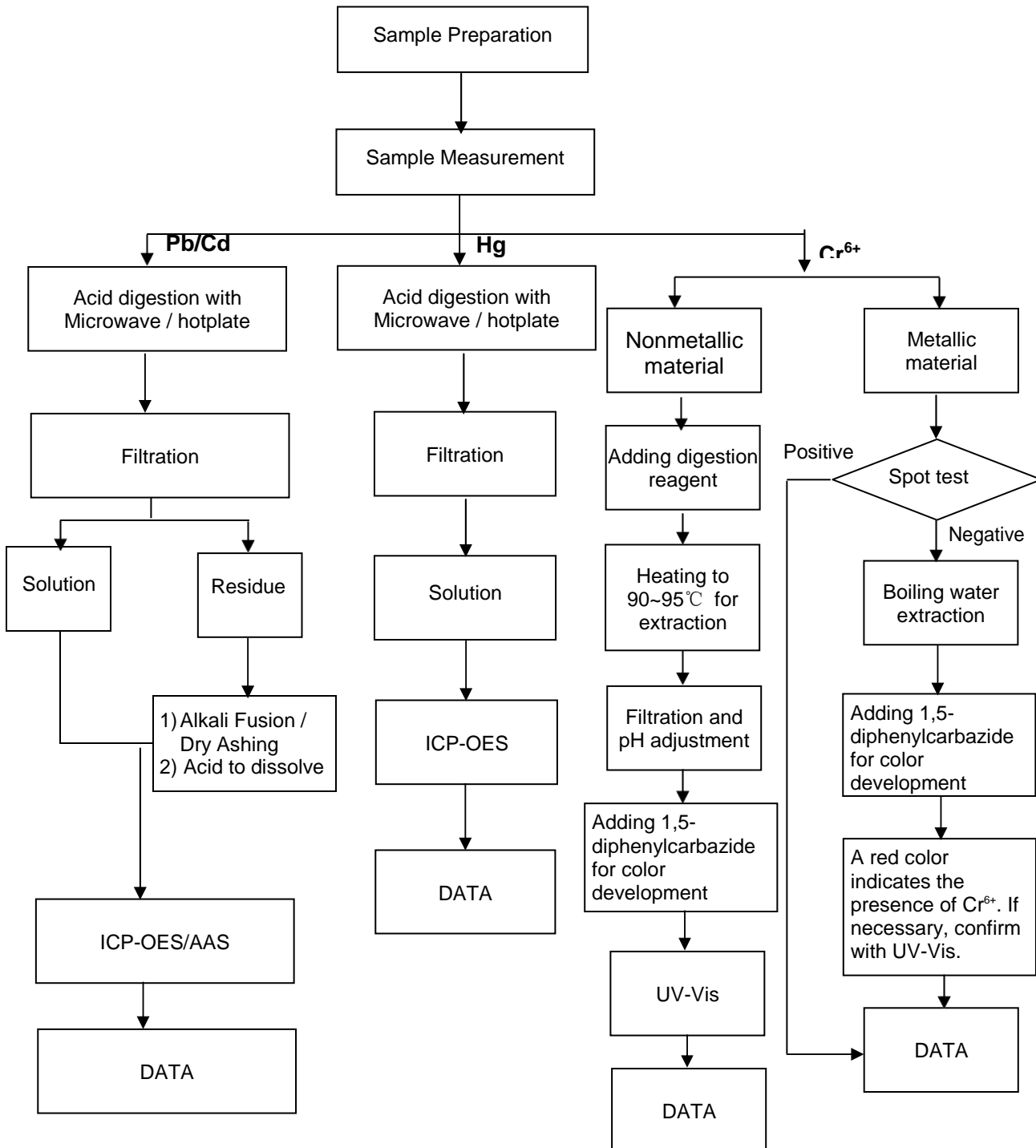
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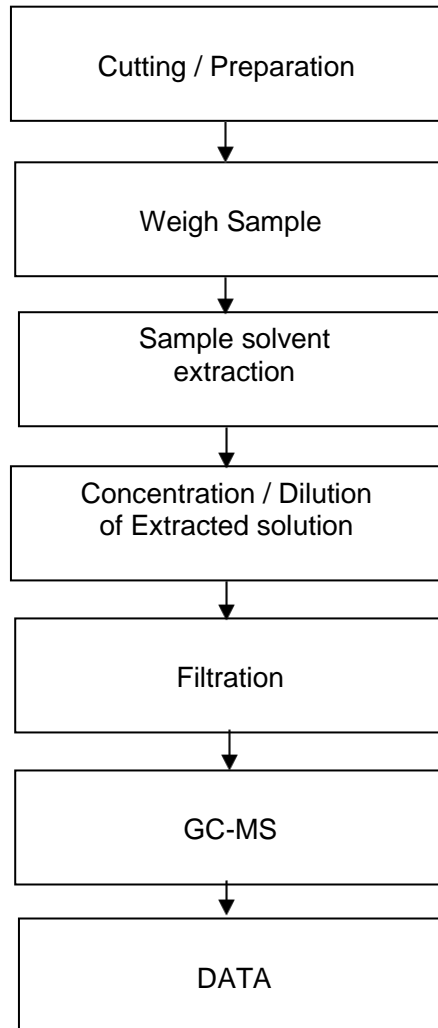
2.5 Chemical Test Method Flow Chart



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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	Silvery coating		P	P	P	P	P	
2	Black plastic base material		P	P	P	P	P	
3	Black coating		P	P	P	P	P	
4	Silvery metal base material		P	P	P	P	/	
5	Black plastic cover		P	P	P	P	P	
6	Black soft rubber washer		P	P	P	P	P	
7	Lockless switch	Silvery metal cover	P	P	P	P	/	
8		Silvery metal wafer	P	P	P	P	/	
9		Black plastic	P	P	P	P	P	
10		Pin	P	P	P	P	/	
11	Power wire	Black soft rubber sheath	P	P	P	P	P	
12		Black plastic bracket	P	P	P	P	P	
13		Silvery metal piece (small)	P	P	P	P	/	
14		Silvery metal pole	X	P	P	P	/	Pb=2.1×10 ⁴ *
15		Black plastic plug material	P	P	P	P	P	
16		Silvery metal piece (big)	P	P	P	P	/	
17		White plastic plug material	P	P	P	P	P	
18		Silvery metal wafer	P	P	P	P	/	
19		Black cable jacket(thick)	P	P	P	P	P	

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No.	Sample Description		Results					Chemical Confirmation Result (Unit=mg/kg)	
			Pb	Cd	Hg	Cr	Br		
20	Power wire	Red enamelled wire	P	P	P	P	/		
21		Green enamelled wire	P	P	P	P	/		
22		Blue enamelled wire	P	P	P	P	/		
23		White wool thread	P	P	P	P	P		
24	Silvery metal screw		P	P	P	P	/		
25	Black cable jacket (thin)		P	P	P	P	P		
26	Red cable jacket		P	P	P	P	P		
27	White cable jacket		P	P	P	P	P		
28	Copper-colored wire		P	P	P	P	/		
29	PCB	IC	Black body	P	P	P	P	X	PBBs,PBDEs=N.D.
30			Pin	P	P	P	P	/	
31		Chip resistor		X	P	P	P	P	Pb= 1.3×10 ³ △
32		Chip capacitor		P	P	P	P	P	
33		Soldering tin		P	P	P	P	/	
34		Copper foil		P	P	P	P	P	
35		Brown fiberboard		P	P	P	P	P	
36		Chip audion	Black body	P	P	P	P	P	
37		Voltage stabilizing diode	Red black body	X	P	P	P	P	Pb= 2.7×10 ⁵ △
38			Pin	P	P	P	P	/	
39	LED	Transparent plastic body		P	P	P	P	X	PBBs,PBDEs=N.D.
40		Pin		P	P	P	P	/	

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No.	Sample Description		Results					Chemical Confirmation Result (Unit=mg/kg)
			Pb	Cd	Hg	Cr	Br	
41	Speaker	Laminations	P	P	P	P	/	
42		Magnet	P	P	P	P	P	
43		Enamelled wire	P	P	P	P	/	
44		Black plastic	P	P	P	P	P	
45		White paperboard	P	P	P	P	P	
46		Dull silvery metal button	P	P	P	P	/	
47		Khaki paper	P	P	P	P	P	
48		Black PU	P	P	P	P	P	
49		Silvery PU	P	P	P	P	P	
50		Black mesh paper		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%

* According to the declaration from client, the source of lead in the sample could be from the copper alloy material. Lead as a copper alloy containing which is under 4% (40000ppm) is exempted from the requirement of RoHS Directive (Annex III,2011/65/EU).

^ 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 (Annex III,2011/65/EU).

Δ According to the declaration from client, the source of lead in the sample could be from the glass material .Lead in glass of electronic components (cathode ray tubes/fluorescent tubes) is exempted from the requirement of RoHS Directive (Annex III,2011/65/EU).

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: 2008.

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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

(3) The test results only apply to the materials requested by applicant.

Written by: *Amanda* Inspected by: *Annie* Approved by: *hyt*

End of Report

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3 Sample Reference Photo



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