

Test Report

Report No. : TCT200113C004

Date : Jan. 17, 2020

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Applicant: SHENZHEN YANGXING TECHNOLOGY CO.,LTD.
Address: 3rd Floor G building, Gangzhilong Science Park, Qinglong Road No.6,
LongHua District, Shenzhen, China

The following sample was submitted and identified by/on behalf of the client as:

Sample Name: Oscillator SMD 7050
Model No.: Oscillator SMD 2016 YSO211SR/ST/SK
Oscillator SMD 2520 YSO221SR/ST/SK
Oscillator SMD 3225 YSO321SR/ST/SK
Oscillator SMD 5032 YSO531SR/ST/SK
Oscillator SMD YSO680PR
Oscillator SMD YSO690PR
TC (VC) Oscillator SMD YSTXXXXSAN
VC Oscillator SMD YSVXXXXCBN

Trade Mark: YXC

Sample Received Date: 2020.01.13

Testing Period: 2020.01.13—2020.01.17

Test Requested:

1. As specified by client, to determine the Pb, Cd, Hg, Cr(VI), PBBs, PBDEs, DBP, BBP, DEHP, DIBP content(s) in the submitted sample.
2. As specified by client, to determine the Fluorine(F), Chlorine(Cl), Bromine(Br), Iodine(I) contents in the submitted sample.
3. As specified by client, to determine the Polycyclic Aromatic Hydrocarbons (PAHs) content in the submitted sample.

Test Method: Please refer to the following page(s).

Test Result(s): Please refer to the following page(s).

Conclusion:

1. Base upon the performed tests by submitted sample, the test results comply with the limits as set by Directive (EU) 2015/863 - Amendment of EU RoHS Directive 2011/65/EU (RoHS 2.0) Annex II.
2. Base upon the performed tests by submitted sample, the test results of Chlorine(Cl), Bromine(Br) comply with standard IEC/EN 61249-2-21:2003 requirement.
3. Base upon the performed tests by submitted sample, the test Results of PAHs comply with entry 50 of annex XVII to (EC) No.1907/2006 REACH Regulation and its amended regulation (EU) No 1272/2013

Checked by



Noel Yin

Signed for and on behalf of TCT



Kim Zhang

Technical Manager



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Test Results:

1. Pb, Cd, Hg, Cr(VI), PBBs, PBDEs, DBP, BBP, DEHP, DIBP Content(s)

Tested Item(s)	Test Method/Instrument	MDL	Unit	Limit	Result
					1
Lead(Pb)	IEC62321-5:2013/ICP-OES	2	mg/kg	1000	N.D.
Cadmium(Cd)	IEC62321-5:2013/ICP-OES	2	mg/kg	100	N.D.
Mercury(Hg)	62321-4:2013+AMD1:2017 /ICP-OES	2	mg/kg	1000	N.D.
Hexavalent Chromium(Cr(VI))	IEC62321-7-2:2017/UV-VIS	2	mg/kg	1000	N.D.
Sum of PBBs	-	-	mg/kg	1000	N.D.
Monobromobiphenyl	IEC62321-6:2015/GC-MS	5	mg/kg	-	N.D.
Dibromobiphenyl	IEC62321-6:2015/GC-MS	5	mg/kg	-	N.D.
Tribromobiphenyl	IEC62321-6:2015/GC-MS	5	mg/kg	-	N.D.
Tetrabromobiphenyl	IEC62321-6:2015/GC-MS	5	mg/kg	-	N.D.
Pentabromobiphenyl	IEC62321-6:2015/GC-MS	5	mg/kg	-	N.D.
Hexabromobiphenyl	IEC62321-6:2015/GC-MS	5	mg/kg	-	N.D.
Heptabromobiphenyl	IEC62321-6:2015/GC-MS	5	mg/kg	-	N.D.
Octabromobiphenyl	IEC62321-6:2015/GC-MS	5	mg/kg	-	N.D.
Nonabromobiphenyl	IEC62321-6:2015/GC-MS	5	mg/kg	-	N.D.
Decabromobiphenyl	IEC62321-6:2015/GC-MS	5	mg/kg	-	N.D.
Sum of PBDEs	-	-	mg/kg	1000	N.D.
Monobromodiphenyl ether	IEC62321-6:2015/GC-MS	5	mg/kg	-	N.D.
Dibromodiphenyl ether	IEC62321-6:2015/GC-MS	5	mg/kg	-	N.D.
Tribromodiphenyl ether	IEC62321-6:2015/GC-MS	5	mg/kg	-	N.D.
Tetrabromodiphenyl ether	IEC62321-6:2015/GC-MS	5	mg/kg	-	N.D.
Pentabromodiphenyl ether	IEC62321-6:2015/GC-MS	5	mg/kg	-	N.D.
Hexabromodiphenyl ether	IEC62321-6:2015/GC-MS	5	mg/kg	-	N.D.
Heptabromodiphenyl ether	IEC62321-6:2015/GC-MS	5	mg/kg	-	N.D.
Octabromodiphenyl ether	IEC62321-6:2015/GC-MS	5	mg/kg	-	N.D.
Nonabromodiphenyl ether	IEC62321-6:2015/GC-MS	5	mg/kg	-	N.D.
Decabromodiphenyl ether	IEC62321-6:2015/GC-MS	5	mg/kg	-	N.D.
Dibutyl Phthalate (DBP)	IEC62321-8:2017/GC-MS	30	mg/kg	1000	N.D.
Benzylbutyl Phthalate (BBP)	IEC62321-8:2017/GC-MS	30	mg/kg	1000	N.D.
Bis-(2-ethylhexyl) Phthalate (DEHP)	IEC62321-8:2017/GC-MS	30	mg/kg	1000	N.D.
Diisobutyl Phthalate (DIBP)	IEC62321-8:2017/GC-MS	30	mg/kg	1000	N.D.

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Specimen Description:

1. Golden electronic component

- Note:
- MDL = Method Detection Limit
 - N.D. =Not Detected(<MDL)
 - 1mg/kg = 1ppm =0.0001%
 - "-"=Not Regulated
 - Sample for Pb, Cd and Hg testing was completely dissolved.

2. Fluorine(F), Chlorine(Cl), Bromine(Br), Iodine(I) Contents

Test Item(s)	Test Method/Equipment	MDL	Unit	Limit	Result(s)
					1
Fluorine (F)	BS EN 14582:2016/IC	50	mg/kg	---	N.D.
Chlorine (Cl)	BS EN 14582:2016/IC	50	mg/kg	900	N.D.
Bromine (Br)	BS EN 14582:2016/IC	50	mg/kg	900	N.D.
Iodine (I)	BS EN 14582:2016/IC	50	mg/kg	---	N.D.
Total(Cl+Br)	---	---	mg/kg	1500	N.D.

Specimen Description:

1. Golden electronic component

- Note:
- MDL = Method Detection Limit
 - N.D.= Not Detected(<MDL)
 - 1mg/kg = 1ppm = 0.0001%
 - "---"=Not Regulated

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3. Regulation (EC) No. 1907/2006 (REACH), Annex XVII and its Amendments – PAHs Content

Method: With reference to AfPS GS 2019:01 PAK

Analysis was performed by Gas Chromatography Mass Spectrometer (GC-MS)

Test Item(s)	Cas No	Result(mg/kg)	MDL (mg/kg)
		1	
1. Benzo(a)pyrene (BaP)	50-32-8	ND	0.2
2. BeP (Benzo(e)pyrene)	192-97-2	ND	0.2
3. Benzo(a)anthracene (BaA)	56-55-3	ND	0.2
4. Chrysene (CHR)	218-01-9	ND	0.2
5. Benzo(b)fluoranthene (BbF)	205-99-2	ND	0.2
6. Benzo[j]fluoranthene(BjF)	205-82-3	ND	0.2
7. Benzo(k)fluoranthene (BkF)	207-08-9	ND	0.2
8. Dibenzo(a,h)anthracene (DBA)	53-70-3	ND	0.2

Maximum Allowable Limit	Type 1	Rubber or plastic components of toys, including activity toys, and childcare articles that come into direct contact with the human skin or the oral cavity: 0.5 mg/kg of any of the listed PAHs.
		Type 2

Specimen Description:

- Golden electronic component

- Note:
- mg/kg = milligram per kilogram
 - 1% = 10000 mg/kg = 10000 ppm
 - MDL = Method Detection Limit
 - ND = Not Detected (lower than MDL)

Test Report

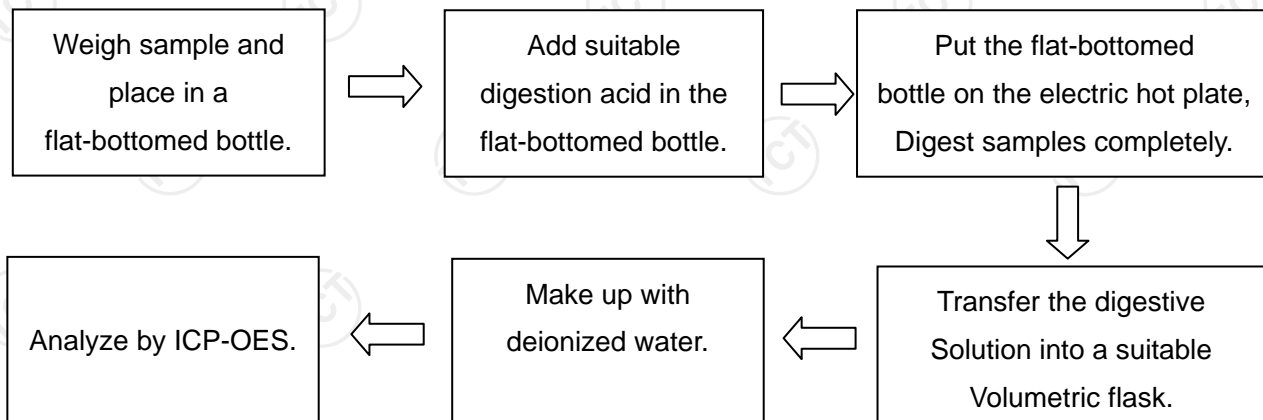
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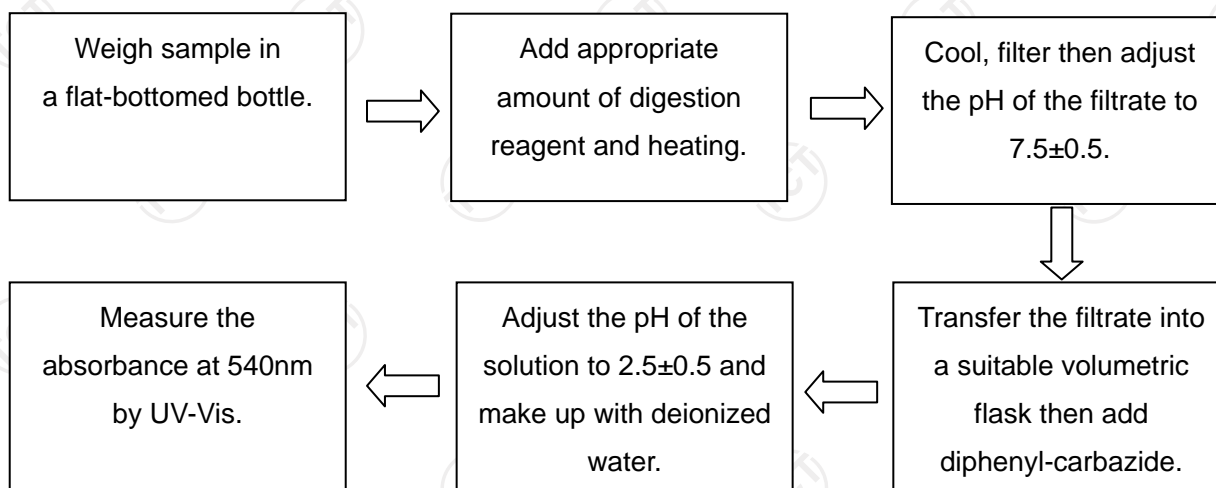
FLOW CHART

1. Test for Pb, Hg, Cd Content



Sample Material	Digestion Acid
Glass	HNO ₃ /HF
Plastic	H ₂ SO ₄ , H ₂ O ₂ , HNO ₃ , HCl
Others	Any acid to total digestion.

2. Test for Chromium(VI) Content(Others)



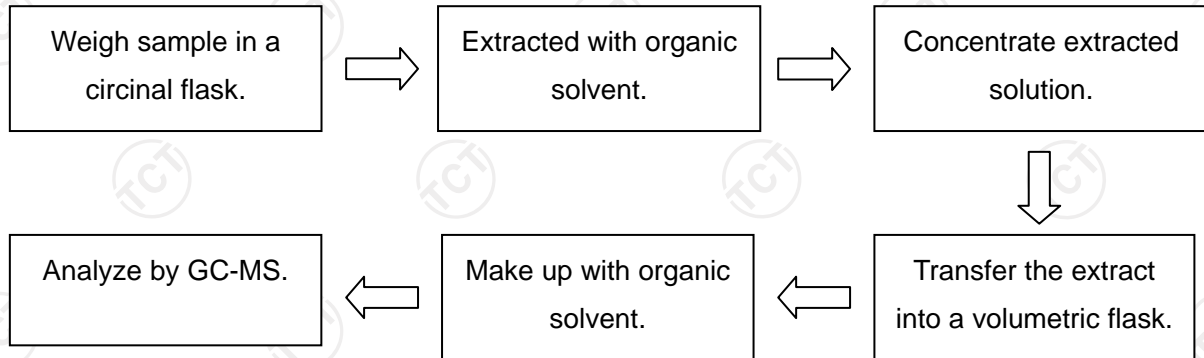
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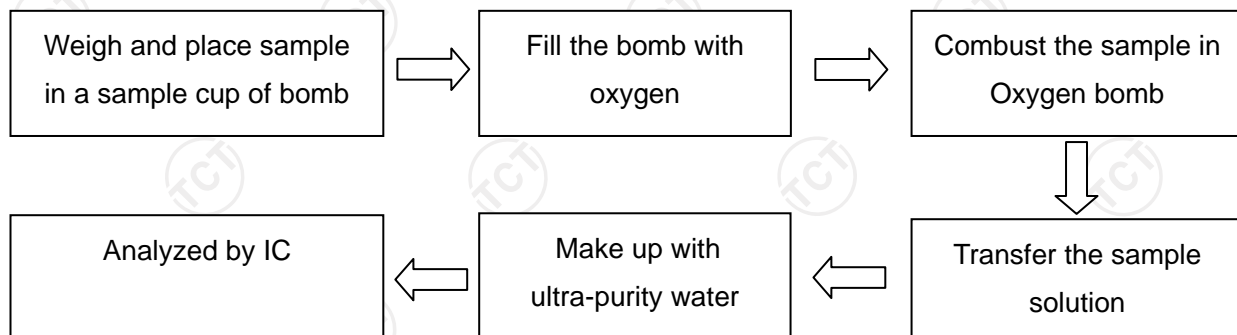
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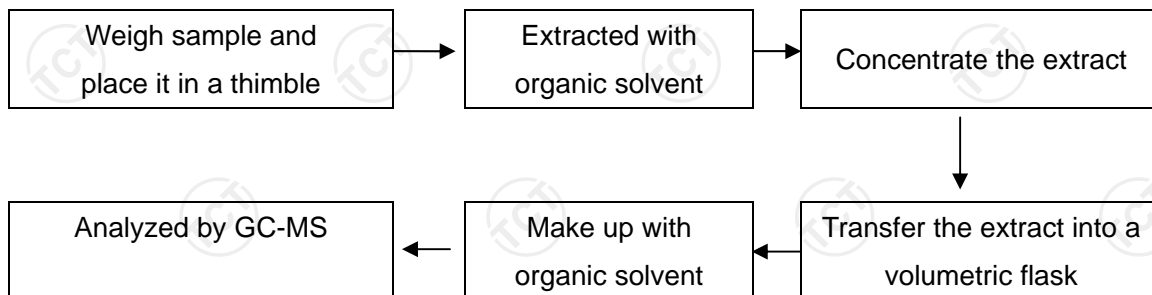
3. Test for PBBs & PBDEs, DBP, BBP, DEHP, DIBP Content



4. Fluorine(F), Chlorine(Cl), Bromine(Br), Iodine(I) Contents



5. PAHs Content



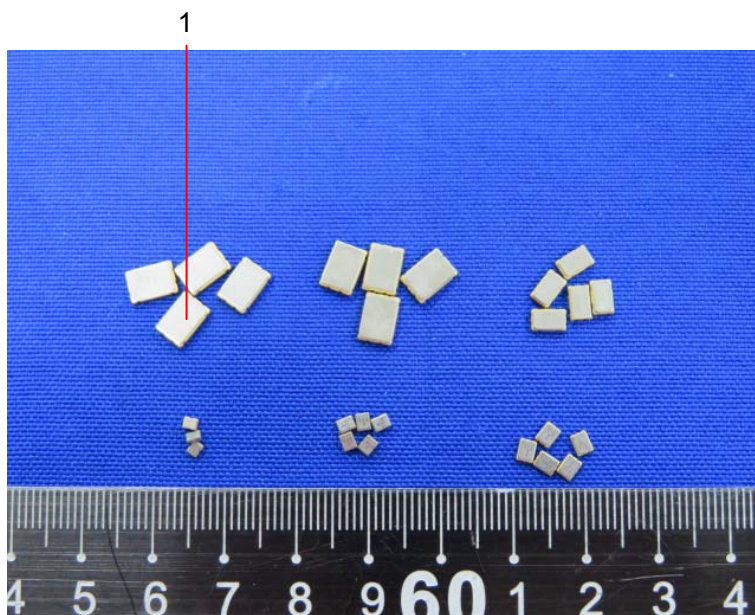
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Photo(s) of the sample(s)



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

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