Test Report

Company Name shown on Report	YANGZHOU SHENGYANG ELECTRONICS CO.,LTD.
Address	CHANGXING ROAD,NORTH DEVELOPMENT ZONE,GAOYOU CITY,JIANGSU PROVINCE,CHINA.

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

Sample Name	Conductive polymer aluminum solid capacitors
Sample Received Date	Aug. 11, 2020
Testing Period	Aug. 11, 2020 to Aug. 19, 2020

Test Conducted:

As requested by the applicant. For details refer to next page(s)

Tested by Kid Zhang Reviewed by Helen Liu

Approved by Hill Zheng Date Aug. 19, 2020

Hill Zheng
Technical Manager

No. R411771513

Centre Testing International Group Co.,Ltd.
CTI Building, Xing Dong Community, Xin'an Sub-district, Bao'an District, Shenzhen City, Guangdong Province, P.R. China

Test Report

Executive Summary:

TEST REQUEST	CONCLUSION
1) RoHS Directive 2011/65/EU with amendment (EU) 2015/863	
- Lead(Pb), Cadmium(Cd), Mercury(Hg), Hexavalent Chromium(Cr(VI)), Polybrominated Biphenyls(PBBs), Polybrominated Diphenyl Ethers(PBDEs), Phthalates(DBP, BBP, DEHP, DIBP)	**See page 4-7**
2) Client's limit	
- Chlorine(Cl), Bromine(Br) , Perfluorooctane Sulfonates (PFOS)	**PASS**
3) As specified by client, to test Fluorine(F), Iodine(I), Antimony(Sb), Hexabromocyclododecane (HBCDD), Perfluorooctanoic Acid(PFOA), Polycyclic Aromatic Hydrocarbons(PAHs) , Red phosphorus in the submitted sample(s).	**See page 8-10**
4) Annex XVII of European regulation (EC) No. 1907/2006 (REACH) with Amendment(s)	
- Phthalates in toys and childcare articles	**PASS**
- Arsenic(As)	**See page 16**
5) Regulation (EU) 2019/1021 on persistent organic pollutants (POPs)	
- Polybrominated Diphenyl Ethers (PBDEs)	**See page 17**
- Short Chain Chlorinated Paraffins (SCCPs)	**See page 17**
- Pentachlorobenzene	**See page 18**
- Hexachlorobenzene	**See page 18**
- Hexabromobiphenyl	**See page 19**
- Polychlorinated Biphenyls(PCBs)	**See page 19**
- Polychlorinated Naphthalenes (PCNs)	**See page 20**
- Hexachlorobutadiene	**See page 20**
- Pentachlorophenol and its salts and esters	**See page 21**

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

Test Report

Test Method

Tested Item(s)	Test Method	Measured Equipment(s)
Lead(Pb)	IEC 62321-5:2013	ICP-OES
Cadmium(Cd)	IEC 62321-5:2013	ICP-OES
Mercury(Hg)	IEC 62321-4:2013+AMD1:2017 CSV	ICP-OES
Hexavalent Chromium(Cr(VI))	IEC 62321-7-1:2015	UV-Vis
	IEC 62321-7-2:2017 and/or determination of Total Chromium by IEC 62321-5:2013	UV-Vis/ICP-OES
Polybrominated Biphenyls(PBBs)	IEC 62321-6:2015	GC-MS
Polybrominated Diphenyl Ethers (PBDEs)	IEC 62321-6:2015	GC-MS
Phthalates (DBP, BBP, DEHP, DIBP)	IEC 62321-8:2017	GC-MS
Antimony(Sb)	Refer to US EPA 3052:1996 & US EPA 6010D:2018	ICP-OES
Hexabromocyclododecane (HBCDD)	Refer to US EPA 3540C:1996 & US EPA 8270E:2018	GC-MS
Fluorine (F)	Refer to EN 14582:2016	IC
Chlorine (Cl)	Refer to EN 14582:2016	IC
Bromine (Br)	Refer to EN 14582:2016	IC
Iodine (I)	Refer to EN 14582:2016	IC
Perfluorooctane Sulfonates (PFOS)	Refer to US EPA 3550C:2007 & US EPA 8321B:2007	LC-MS-MS
Perfluorooctanoic Acid (PFOA)	Refer to US EPA 3550C:2007 & US EPA 8321B:2007	LC-MS-MS
Red phosphorus	Refer to GB/T 6040-2002, GB/T 9722-2006, GB/T 17359-2012, EPA 6010D-2014	FTIR, SEM/EDS, PY-GC-MS, ICP-OES
Polycyclic Aromatic Hydrocarbons (PAHs)	AfPS GS 2019:01 PAK	GC-MS

Test Report

Test Result(s) 1

Tested Item(s)	Result			MDL
	001	002	003	
Lead (Pb)	N.D.	N.D.	N.D.	2 mg/kg
Cadmium (Cd)	N.D.	N.D.	N.D.	2 mg/kg
Mercury (Hg)	N.D.	N.D.	N.D.	2 mg/kg
Hexavalent Chromium (Cr(VI))	N.D.	N.D.	N.D.	8 mg/kg
	--	--	--	0.10 μg/cm² (LOQ)

Tested Item(s)	Result			MDL
	004	005	006	
Lead (Pb)	N.D.	N.D.	N.D.	2 mg/kg
Cadmium (Cd)	N.D.	N.D.	N.D.	2 mg/kg
Mercury (Hg)	N.D.	N.D.	N.D.	2 mg/kg
Hexavalent Chromium (Cr(VI))	N.D.	N.D.	--	8 mg/kg
	--	--	N.D.▼	0.10 μg/cm² (LOQ)

Tested Item(s)	Result			MDL
	007	008	009	
Lead (Pb)	N.D.	N.D.	N.D.	2 mg/kg
Cadmium (Cd)	N.D.	N.D.	N.D.	2 mg/kg
Mercury (Hg)	N.D.	N.D.	N.D.	2 mg/kg
Hexavalent Chromium (Cr(VI))	--	--	--	8 mg/kg
	N.D.▼	N.D.▼	N.D.▼	0.10 μg/cm² (LOQ)

Tested Item(s)	Result	MDL
	010	
Lead (Pb)	N.D.	2 mg/kg
Cadmium (Cd)	N.D.	2 mg/kg
Mercury (Hg)	N.D.	2 mg/kg
Hexavalent Chromium (Cr(VI))	--	8 mg/kg
	N.D.▼	0.10 μg/cm² (LOQ)

Test Report

Tested Item(s)	Result			MDL
	001	002	003	
Polybrominated Biphenyls(PBBs)				
Monobromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg
Dibromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg
Tribromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg
Tetrabromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg
Pentabromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg
Hexabromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg
Heptabromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg
Octabromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg
Nonabromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg
Decabromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg

Tested Item(s)	Result		MDL
	004	005	
Polybrominated Biphenyls(PBBs)			
Monobromobiphenyl	N.D.	N.D.	5 mg/kg
Dibromobiphenyl	N.D.	N.D.	5 mg/kg
Tribromobiphenyl	N.D.	N.D.	5 mg/kg
Tetrabromobiphenyl	N.D.	N.D.	5 mg/kg
Pentabromobiphenyl	N.D.	N.D.	5 mg/kg
Hexabromobiphenyl	N.D.	N.D.	5 mg/kg
Heptabromobiphenyl	N.D.	N.D.	5 mg/kg
Octabromobiphenyl	N.D.	N.D.	5 mg/kg
Nonabromobiphenyl	N.D.	N.D.	5 mg/kg
Decabromobiphenyl	N.D.	N.D.	5 mg/kg

Test Report

Tested Item(s)	Result			MDL
	001	002	003	
Polybrominated Diphenyl Ethers (PBDEs)				
Monobromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg
Dibromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg
Tribromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg
Tetrabromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg
Pentabromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg
Hexabromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg
Heptabromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg
Octabromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg
Nonabromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg
Decabromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg

Tested Item(s)	Result		MDL
	004	005	
Polybrominated Diphenyl Ethers (PBDEs)			
Monobromodiphenyl ether	N.D.	N.D.	5 mg/kg
Dibromodiphenyl ether	N.D.	N.D.	5 mg/kg
Tribromodiphenyl ether	N.D.	N.D.	5 mg/kg
Tetrabromodiphenyl ether	N.D.	N.D.	5 mg/kg
Pentabromodiphenyl ether	N.D.	N.D.	5 mg/kg
Hexabromodiphenyl ether	N.D.	N.D.	5 mg/kg
Heptabromodiphenyl ether	N.D.	N.D.	5 mg/kg
Octabromodiphenyl ether	N.D.	N.D.	5 mg/kg
Nonabromodiphenyl ether	N.D.	N.D.	5 mg/kg
Decabromodiphenyl ether	N.D.	N.D.	5 mg/kg

Test Report

Tested Item(s)	Result			MDL
	001	002	003	
Phthalates (DBP, BBP, DEHP, DIBP)				
Dibutyl phthalate (DBP) CAS#:84-74-2	N.D.	N.D.	N.D.	50 mg/kg
Butyl benzyl phthalate (BBP) CAS#:85-68-7	N.D.	N.D.	N.D.	50 mg/kg
Di-(2-ethylhexyl) phthalate (DEHP) CAS#:117-81-7	N.D.	N.D.	N.D.	50 mg/kg
Diisobutyl phthalate (DIBP) CAS#:84-69-5	N.D.	N.D.	N.D.	50 mg/kg

Tested Item(s)	Result		MDL
	004	005	
Phthalates (DBP, BBP, DEHP, DIBP)			
Dibutyl phthalate (DBP) CAS#:84-74-2	N.D.	N.D.	50 mg/kg
Butyl benzyl phthalate (BBP) CAS#:85-68-7	N.D.	N.D.	50 mg/kg
Di-(2-ethylhexyl) phthalate (DEHP) CAS#:117-81-7	N.D.	N.D.	50 mg/kg
Diisobutyl phthalate (DIBP) CAS#:84-69-5	N.D.	N.D.	50 mg/kg

Test Result(s) 2

Tested Item(s)	Result			MDL	Client's limit
	001	002	003		
Chlorine (Cl)	N.D.	N.D.	N.D.	10 mg/kg	900 mg/kg
Bromine (Br)	N.D.	N.D.	N.D.	10 mg/kg	900 mg/kg
Total (Cl +Br)	N.D.	N.D.	N.D.	/	1500 mg/kg

Tested Item(s)	Result		MDL	Client's limit
	004	005		
Chlorine (Cl)	87 mg/kg	N.D.	10 mg/kg	900 mg/kg
Bromine (Br)	N.D.	N.D.	10 mg/kg	900 mg/kg
Total (Cl +Br)	87 mg/kg	N.D.	/	1500 mg/kg

Test Report

Tested Item(s)	Result			MDL	Client's limit
	001	002	003		
Perfluorooctane Sulfonates (PFOS)	N.D.	N.D.	N.D.	0.01 mg/kg	1000 mg/kg

Tested Item(s)	Result		MDL	Client's limit
	004	005		
Perfluorooctane Sulfonates (PFOS)	N.D.	N.D.	0.01 mg/kg	1000 mg/kg

Test Result(s) 3

Tested Item(s)	Result			MDL
	001	002	003	
Antimony (Sb)	N.D.	6 mg/kg	N.D.	5 mg/kg

Tested Item(s)	Result		MDL
	004	005	
Antimony (Sb)	N.D.	N.D.	5 mg/kg

Tested Item(s)	Result			MDL
	001	002	003	
Hexabromocyclododecane (HBCDD)	N.D.	N.D.	N.D.	5 mg/kg
Tested Item(s)	**Result**			**MDL**
	004	**005**		
Hexabromocyclododecane (HBCDD)	N.D.	N.D.		5 mg/kg

Tested Item(s)	Result			MDL
	001	002	003	
Fluorine (F)	N.D.	N.D.	N.D.	10 mg/kg
Iodine (I)	N.D.	N.D.	N.D.	10 mg/kg

Test Report

Tested Item(s)	Result		MDL
	004	005	
Fluorine (F)	N.D.	N.D.	10 mg/kg
Iodine (I)	N.D.	N.D.	10 mg/kg

Tested Item(s)	Result			MDL
	001	002	003	
Perfluorooctanoic Acid (PFOA)	N.D.	N.D.	N.D.	0.01 mg/kg

Tested Item(s)	Result		MDL
	004	005	
Perfluorooctanoic Acid (PFOA)	N.D.	N.D.	0.01 mg/kg

Tested Item(s)	Result					MDL
	001	002	003	004	005	
Red phosphorus	N.D.	N.D.	N.D.	N.D.	N.D.	500 mg/kg

Tested Item(s)	Result				MDL
	001	002	003	004	
Polycyclic Aromatic Hydrocarbons (PAHs)					
Naphthalene	N.D.	N.D.	N.D.	N.D.	0.2 mg/kg
Phenanthrene	N.D.	N.D.	N.D.	N.D.	0.2 mg/kg
Anthracene	N.D.	N.D.	N.D.	N.D.	0.2 mg/kg
Fluoranthene	N.D.	N.D.	N.D.	N.D.	0.2 mg/kg
Pyrene	N.D.	N.D.	N.D.	N.D.	0.2 mg/kg
Chrysene	N.D.	N.D.	N.D.	N.D.	0.2 mg/kg
Benzo(a)anthracene	N.D.	N.D.	N.D.	N.D.	0.2 mg/kg
Benzo(b)fluoranthene	N.D.	N.D.	N.D.	N.D.	0.2 mg/kg
Benzo(k)fluoranthene	N.D.	N.D.	N.D.	N.D.	0.2 mg/kg
Benzo(j)fluoranthene	N.D.	N.D.	N.D.	N.D.	0.2 mg/kg
Benzo(a)pyrene	N.D.	N.D.	N.D.	N.D.	0.2 mg/kg
Benzo(e)pyrene	N.D.	N.D.	N.D.	N.D.	0.2 mg/kg
Dibenzo(a,h)anthracene	N.D.	N.D.	N.D.	N.D.	0.2 mg/kg
Benzo(g,h,i)perylene	N.D.	N.D.	N.D.	N.D.	0.2 mg/kg
Indenol(1,2,3-cd)pyrene	N.D.	N.D.	N.D.	N.D.	0.2 mg/kg
Sum (Phenanthrene, Anthracene, Fluoranthene, Pyrene)	N.D.	N.D.	N.D.	N.D.	/
Sum 15 PAHs	N.D.	N.D.	N.D.	N.D.	/

Test Report

Tested Item(s)	Result	MDL
	005	
Polycyclic Aromatic Hydrocarbons (PAHs)		
Naphthalene	N.D.	0.2 mg/kg
Phenanthrene	N.D.	0.2 mg/kg
Anthracene	N.D.	0.2 mg/kg
Fluoranthene	N.D.	0.2 mg/kg
Pyrene	N.D.	0.2 mg/kg
Chrysene	N.D.	0.2 mg/kg
Benzo(a)anthracene	N.D.	0.2 mg/kg
Benzo(b)fluoranthene	N.D.	0.2 mg/kg
Benzo(k)fluoranthene	N.D.	0.2 mg/kg
Benzo(j)fluoranthene	N.D.	0.2 mg/kg
Benzo(a)pyrene	N.D.	0.2 mg/kg
Benzo(e)pyrene	N.D.	0.2 mg/kg
Dibenzo(a,h)anthracene	N.D.	0.2 mg/kg
Benzo(g,h,i)perylene	N.D.	0.2 mg/kg
Indenol(1,2,3-cd)pyrene	N.D.	0.2 mg/kg
Sum (Phenanthrene, Anthracene, Fluoranthene, Pyrene)	N.D.	/
Sum 15 PAHs	N.D.	/

Test Report

Maximum PAHs limits (mg/kg) for the materials with relevant contact/grip and operating surfaces that are to be categorised based on the results of the risk assessment

Parameters	Category 1	Category 2		Category 3	
	Materials intended to be placed in the mouth, or materials in toys according to Directive 2009/48/EC or materials for the use by children up to 3 years of age coming into long-term contact with skin (more than 30s) during the intended use	Materials not covered by category 1, coming into long-term contact (more than 30s) or short-term repetitive contact** with skin during the intended or foreseeable use		Materials not covered by category 1 nor by category 2, coming into short-term contact (up to 30s) with skin during the intended or foreseeable use	
		Use by children (< 14 years) (include both active and passive direct contact)	Other consumer products	Use by children (< 14 years) (include both active and passive direct contact)	Other consumer products
Benzo(a)pyrene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo(e)pyrene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo(a)anthracene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo(b)fluoranthene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo(j)fluoranthene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo(k)fluoranthene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Chrysene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Dibenz(a,h)anthracene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo(g,h,i)perylene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Indenol(1,2,3-cd)pyrene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Phenanthrene, Anthracene, Fluoranthene, Pyrene	< 1 Sum	< 5 Sum	< 10 Sum	< 20 Sum	< 50 Sum
Naphthalene	< 1	< 2		< 10	
Sum 15 PAHs	< 1	< 5	< 10	< 20	< 50

** Definition “short-term repetitive contact” taken from REACH Annex XVII entry 50 amendment (REGULATION (EU) No.1272/2013)

Test Report

Remark: **-The sample(s) had been dissolved totally tested for Lead, Cadmium, Mercury, Antimony.**
- *As specified by client, the test was conducted by mixing several samples together. The result(s) shown on this report may be different from the content of any homogeneous material.
-MDL = Method Detection Limit
-N.D. = Not Detected (<MDL or LOQ)
-mg/kg = ppm = parts per million
-1000 mg/kg = 0.1%
-LOQ = Limit of Quantification, The LOQ of Hexavalent chromium is 0.10 μg/cm^2
-▼The sample is negative for Cr(VI) − The Cr(VI) concentration is below 0.10 μg/cm^2. The coating is considered a non-Cr(VI) based coating.

Test Report

Test Result(s) 4

Annex XVII of European regulation (EC) No. 1907/2006 (REACH) with Amendment(s)

▼**Phthalates in toys and childcare articles**

As specified in entry 51 & entry 52, annex XVII of European regulation (EC) No. 1907/2006 (REACH) with amendments No.552/2009 & No 2015/326, method(s) EN 14372:2004 was/were used, and the item(s) was/were analyzed by GC-MS.

Tested Item(s)	Result(mg/kg)			MDL (mg/kg)	Client's limit(mg/kg)
	001	002	003		
Phthalates					
Dibutyl phthalate (DBP) CAS#:84-74-2	N.D.	N.D.	N.D.	30 mg/kg	1000
Butyl benzyl phthalate (BBP) CAS#:85-68-7	N.D.	N.D.	N.D.	30 mg/kg	1000
Di-(2-ethylhexyl) phthalate (DEHP) CAS#:117-81-7	N.D.	N.D.	N.D.	30 mg/kg	1000
Diisobutyl phthalate (DIBP) CAS#:84-69-5	N.D.	N.D.	N.D.	30 mg/kg	1000
SUM(DEHP+DBP+BBP+ DIBP)	N.D.	N.D.	N.D.	--	1000
Di-n-octyl phthalate (DNOP) CAS#:117-84-0	N.D.	N.D.	N.D.	30 mg/kg	--
Di-isononyl phthalate (DINP) CAS#:28553-12-0,68515-48-0	N.D.	N.D.	N.D.	50 mg/kg	--
Di-iso-decyl phthalate (DIDP) CAS#:26761-40-0,68515-49-1	N.D.	N.D.	N.D.	50 mg/kg	--
SUM(DINP+DNOP+DIDP)	N.D.	N.D.	N.D.	--	1000
Client's additional requirement on other phthalate(s)					
Dimethyl phthalate (DMP) CAS#:131-11-3	N.D.	N.D.	N.D.	30 mg/kg	--
Diethyl phthalate (DEP) CAS#:84-66-2	N.D.	N.D.	N.D.	30 mg/kg	--
Dipropyl phthalate (DPrP) CAS#:131-16-8	N.D.	N.D.	N.D.	30 mg/kg	--
Dipentyl phthalate (DPP) CAS#:131-18-0	N.D.	N.D.	N.D.	30 mg/kg	--

Test Report

Tested Item(s)	Result(mg/kg)			MDL (mg/kg)	Client's limit(mg/kg)
	001	002	003		
Phthalates					
Dicyclohexyl phthalate (DCHP) CAS#:84-61-7	N.D.	N.D.	N.D.	30 mg/kg	--
Diisooctyl phthalate (DIOP) CAS#:27554-26-3	N.D.	N.D.	N.D.	50 mg/kg	--
Dinonyl phthalate (DNP) CAS#:84-76-4	N.D.	N.D.	N.D.	30 mg/kg	--
Di-n-hexyl phthalate (DNHP) CAS#:84-75-3	N.D.	N.D.	N.D.	30 mg/kg	--
Dibenzyl phthalate (DBzP) CAS#:523-31-9	N.D.	N.D.	N.D.	30 mg/kg	--
Diphenyl phthalate (DPhP) CAS#:84-62-8	N.D.	N.D.	N.D.	30 mg/kg	--

Tested Item(s)	Result(mg/kg)		MDL (mg/kg)	Client's limit(mg/kg)
	004	005		
Phthalates				
Dibutyl phthalate (DBP) CAS#:84-74-2	N.D.	N.D.	30 mg/kg	1000
Butyl benzyl phthalate (BBP) CAS#:85-68-7	N.D.	N.D.	30 mg/kg	1000
Di-(2-ethylhexyl) phthalate (DEHP) CAS#:117-81-7	N.D.	N.D.	30 mg/kg	1000
Diisobutyl phthalate (DIBP) CAS#:84-69-5	N.D.	N.D.	30 mg/kg	1000
SUM(DEHP+DBP+BBP+ DIBP)	N.D.	N.D.	--	1000
Di-n-octyl phthalate (DNOP) CAS#:117-84-0	N.D.	N.D.	30 mg/kg	--
Di-isononyl phthalate (DINP) CAS#:28553-12-0,68515-48-0	N.D.	N.D.	50 mg/kg	--
Di-iso-decyl phthalate (DIDP) CAS#:26761-40-0,68515-49-1	N.D.	N.D.	50 mg/kg	--
SUM(DINP+DNOP+DIDP)	N.D.	N.D.	--	1000
Client's additional requirement on other phthalate(s)				
Dimethyl phthalate (DMP) CAS#:131-11-3	N.D.	N.D.	30 mg/kg	--

Test Report

Tested Item(s)	Result(mg/kg)		MDL (mg/kg)	Client's limit(mg/kg)
	004	005		
Phthalates				
Diethyl phthalate (DEP) CAS#:84-66-2	N.D.	N.D.	30 mg/kg	--
Dipropyl phthalate (DPrP) CAS#:131-16-8	N.D.	N.D.	30 mg/kg	--
Dipentyl phthalate (DPP) CAS#:131-18-0	N.D.	N.D.	30 mg/kg	--
Dicyclohexyl phthalate (DCHP) CAS#:84-61-7	N.D.	N.D.	30 mg/kg	--
Diisooctyl phthalate (DIOP) CAS#:27554-26-3	N.D.	N.D.	50 mg/kg	--
Dinonyl phthalate (DNP) CAS#:84-76-4	N.D.	N.D.	30 mg/kg	--
Di-n-hexyl phthalate (DNHP) CAS#:84-75-3	N.D.	N.D.	30 mg/kg	--
Dibenzyl phthalate (DBzP) CAS#:523-31-9	N.D.	N.D.	30 mg/kg	--
Diphenyl phthalate (DPhP) CAS#:84-62-8	N.D.	N.D.	30 mg/kg	--

Remark:

- MDL = Method Detection Limit
- N.D. = Not Detected (<MDL)
- mg/kg = ppm = parts per million
- 1000mg/kg = 0.1%

Test Report

▼**Arsenic(As)**

As specified in entry 19, annex XVII of European regulation (EC) No. 1907/2006 (REACH) with amendment No.552/2009, Refer to method(s) US EPA 3052:1996 & US EPA 6010D:2014, and the item(s) was/were analyzed by ICP-OES.

Tested Item(s)	Result(mg/kg)			MDL(mg/kg)
	001	002	003	
Arsenic (As)	N.D.	N.D.	N.D.	10

Tested Item(s)	Result(mg/kg)		MDL(mg/kg)
	004	005	
Arsenic (As)	N.D.	N.D.	10

Remark:

- MDL = Method Detection Limit
- N.D. = Not Detected (<MDL)
- mg/kg = ppm = parts per million

Test Report

Test Result(s) 5

Regulation (EU) 2019/1021 on persistent organic pollutants (POPs)

▼**Polybrominated Diphenyl Ethers (PBDEs)**

Method(s) IEC 62321-6:2015 Ed 1.0 was/were used, and the item(s) was/were analyzed by GC-MS.

Tested Item(s)	Result (mg/kg)	MDL (mg/kg)
	011	
Tetrabromodiphenyl ether	N.D.	5
Pentabromodiphenyl ether	N.D.	5
Hexabromodiphenyl ether	N.D.	5
Heptabromodiphenyl ether	N.D.	5
Decabromodiphenyl ether	N.D.	5

Remark:

- MDL = Method Detection Limit
- N.D. = Not Detected (<MDL)
- mg/kg = ppm = parts per million
- *As specified by client, the test was conducted by mixing several samples together. The result(s) shown on this report may be different from the content of any homogeneous material.

▼**Short Chain Chlorinated Paraffins (SCCPs)**

Refer to method(s) US EPA 3540C:1996 & US EPA 8270E:2017, and the item(s) was/were analyzed by GC-MS(NCI).

Tested Item(s)	Result (mg/kg)	MDL (mg/kg)
	011	
Short Chain Chlorinated Paraffins (SCCPs)	N.D.	100

Remark:

- MDL = Method Detection Limit
- N.D. = Not Detected (<MDL)
- mg/kg = ppm = parts per million
- *As specified by client, the test was conducted by mixing several samples together. The result(s) shown on this report may be different from the content of any homogeneous material.

▼**Pentachlorobenzene**

Refer to method(s) US EPA 3550C:2007 & US EPA 8270E:2017, and the item(s) was/were analyzed by GC-MS.

Tested Item(s)	Result (mg/kg)	MDL (mg/kg)
	011	
Pentachlorobenzene	N.D.	50

Remark:

- MDL = Method Detection Limit
- N.D. = Not Detected (<MDL)
- mg/kg = ppm = parts per million
- *As specified by client, the test was conducted by mixing several samples together. The result(s) shown on this report may be different from the content of any homogeneous material.

▼**Hexachlorobenzene**

Refer to method(s) US EPA 3550C:2007 & US EPA 8270E:2017, and the item(s) was/were analyzed by GC-MS.

Tested Item(s)	Result (mg/kg)	MDL (mg/kg)
	011	
Hexachlorobenzene	N.D.	50

Remark:

- MDL = Method Detection Limit
- N.D. = Not Detected (<MDL)
- mg/kg = ppm = parts per million
- *As specified by client, the test was conducted by mixing several samples together. The result(s) shown on this report may be different from the content of any homogeneous material.

Test Report

▼**Hexabromobiphenyl**

Method(s) IEC 62321-6:2015 Ed 1.0 was/were used, and the item(s) was/were analyzed by GC-MS.

Tested Item(s)	Result (mg/kg)	MDL (mg/kg)
	011	
Hexabromobiphenyl	N.D.	5

Remark:

- MDL = Method Detection Limit
- N.D. = Not Detected (<MDL)
- mg/kg = ppm = parts per million
- *As specified by client, the test was conducted by mixing several samples together. The result(s) shown on this report may be different from the content of any homogeneous material.

▼**Polychlorinated Biphenyls(PCBs)**

Refer to method(s) US EPA 3550C:2007 & US EPA 8270E:2017, and the item(s) was/were analyzed by GC-MS.

Tested Item(s)	Result (mg/kg)	MDL (mg/kg)
	011	
Polychlorinated Biphenyls (PCBs)	N.D.	5

Remark:

- MDL = Method Detection Limit
- N.D. = Not Detected (<MDL)
- mg/kg = ppm = parts per million
- *As specified by client, the test was conducted by mixing several samples together. The result(s) shown on this report may be different from the content of any homogeneous material.

Test Report

▼**Polychlorinated Naphthalenes (PCNs)**

Refer to method(s) US EPA 3550C:2007 & US EPA 8270E:2017, and the item(s) was/were analyzed by GC-MS.

Tested Item(s)	Result (mg/kg)	MDL (mg/kg)
	011	
Polychlorinated Naphthalenes (PCNs)	N.D.	5

Remark:

- MDL = Method Detection Limit
- N.D. = Not Detected (<MDL)
- mg/kg = ppm = parts per million
- *As specified by client, the test was conducted by mixing several samples together. The result(s) shown on this report may be different from the content of any homogeneous material.

▼**Hexachlorobutadiene**

Refer to method(s) US EPA 3550C:2007 & US EPA 8270E:2017, and the item(s) was/were analyzed by GC-MS.

Tested Item(s)	Result (mg/kg)	MDL (mg/kg)
	011	
Hexachlorobutadiene	N.D.	50

Remark:

- MDL = Method Detection Limit
- N.D. = Not Detected (<MDL)
- mg/kg = ppm = parts per million
- *As specified by client, the test was conducted by mixing several samples together. The result(s) shown on this report may be different from the content of any homogeneous material.

Test Report

▼**Pentachlorophenol and its salts and esters**

Refer to method(s) ISO 17070:2015, and the item(s) was/were analyzed by GC-MS.

Tested Item(s)	Result (mg/kg)	MDL (mg/kg)
	011	
Pentachlorophenol and its salts and esters	N.D.	1

Remark:

- MDL = Method Detection Limit
- N.D. = Not Detected (<MDL)
- mg/kg = ppm = parts per million
- *As specified by client, the test was conducted by mixing several samples together. The result(s) shown on this report may be different from the content of any homogeneous material.

Sample/Part Description

001 Brown-yellow film with adhesive paste
002 Beige white paper
003 Black solid
004 Red ink
005 Black rubber
006 Silver-grey metal
007 Grey metal
008 Silvery metal
009 Mixed test, silver-white and coloured metal *
010 Mixed test, metal with silvery plating*
011 Mixed test, all parts*

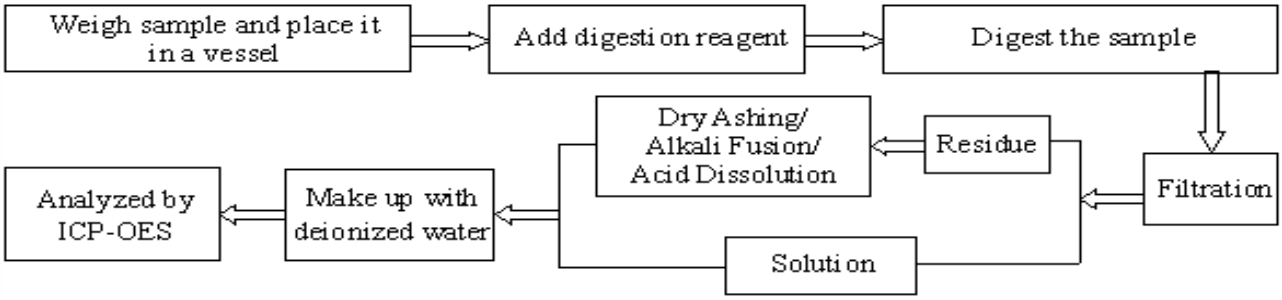
Note:

The testing data and result(s) in this report is(are) just for scientific research, education, internal quality control and product development etc.

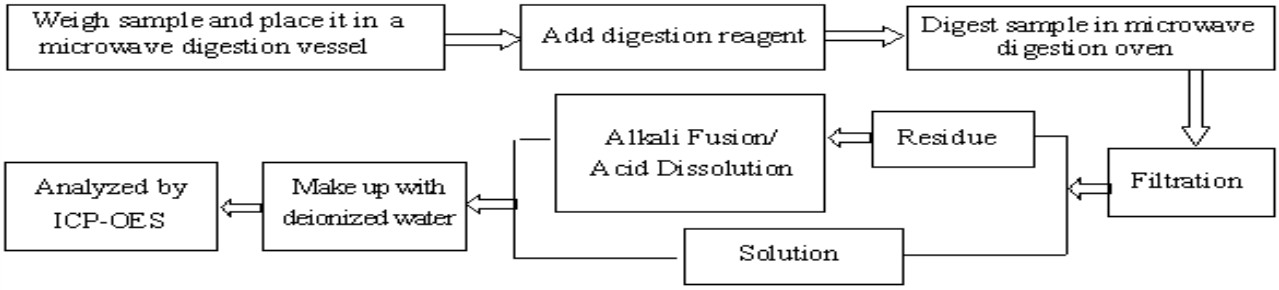
Test Report

Test Process

1. Lead(Pb), Cadmium(Cd), Chromium(Cr)

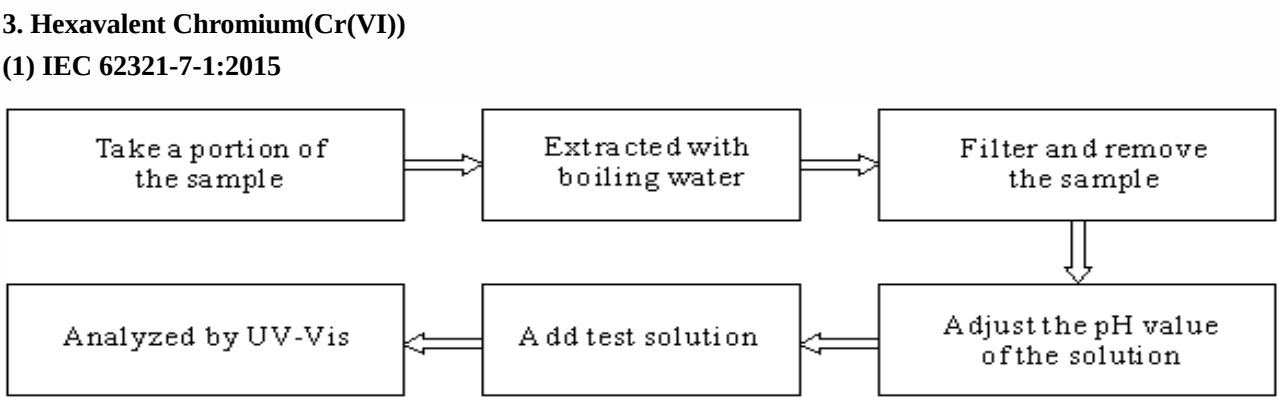


2. Mercury(Hg)

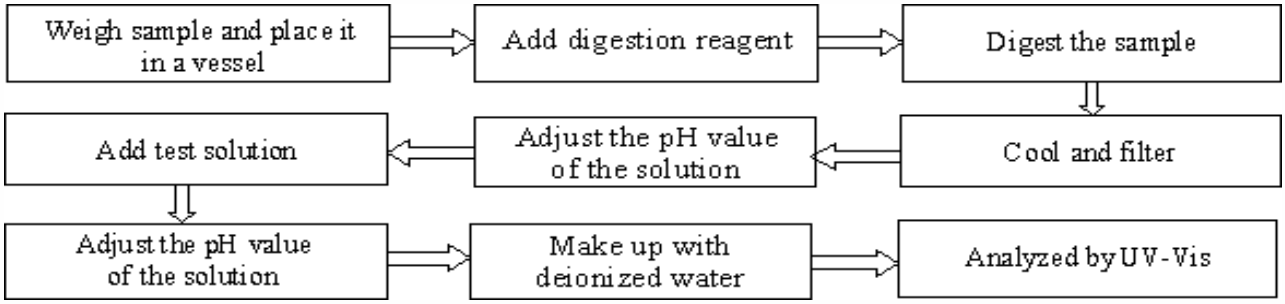


3. Hexavalent Chromium(Cr(VI))

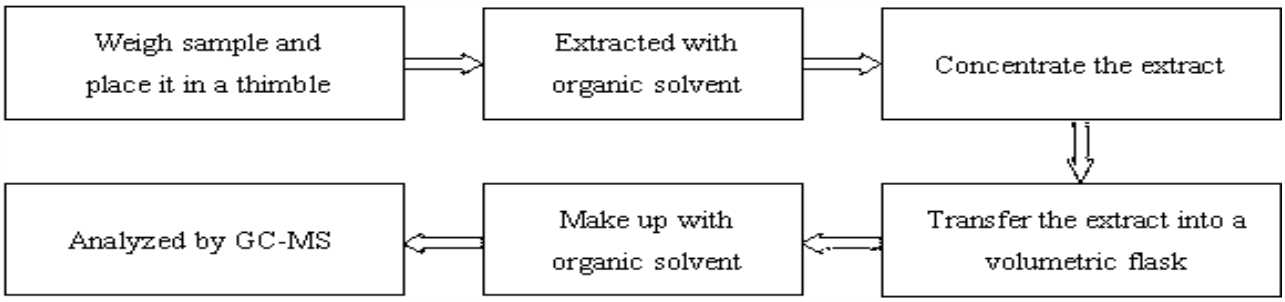
(1) IEC 62321-7-1:2015



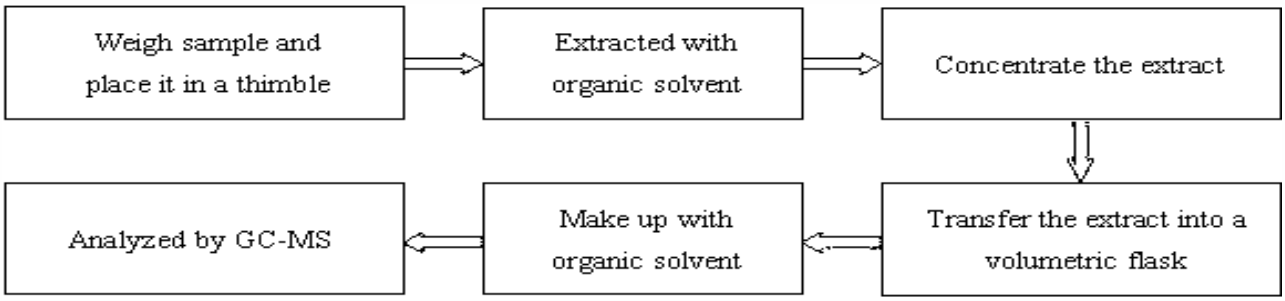
(2) IEC 62321-7-2:2017



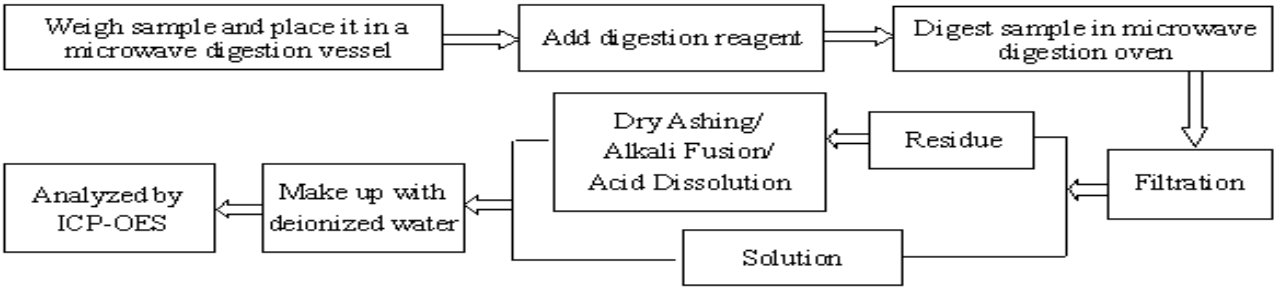
4. Polybrominated Biphenyls(PBBs), Polybrominated Diphenyl Ethers (PBDEs)



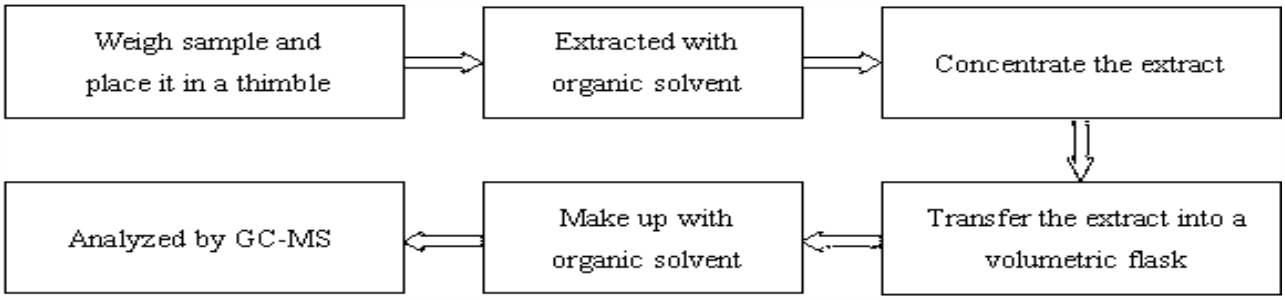
5. Phthalates (DBP, BBP, DEHP, DIBP)



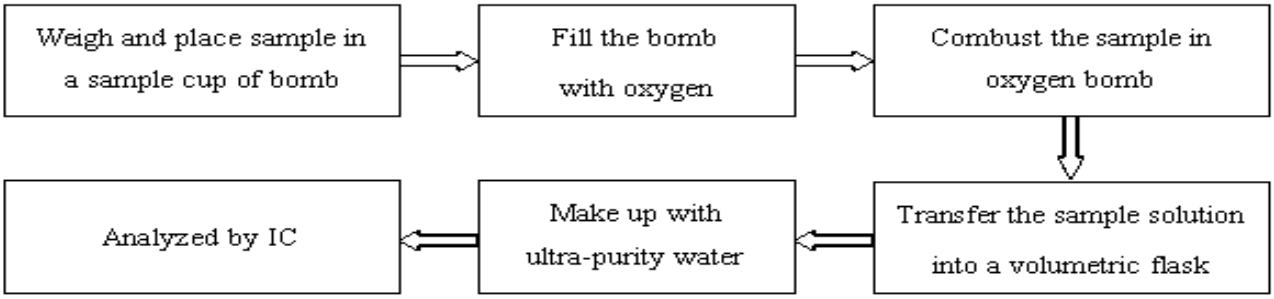
6. Antimony(Sb)



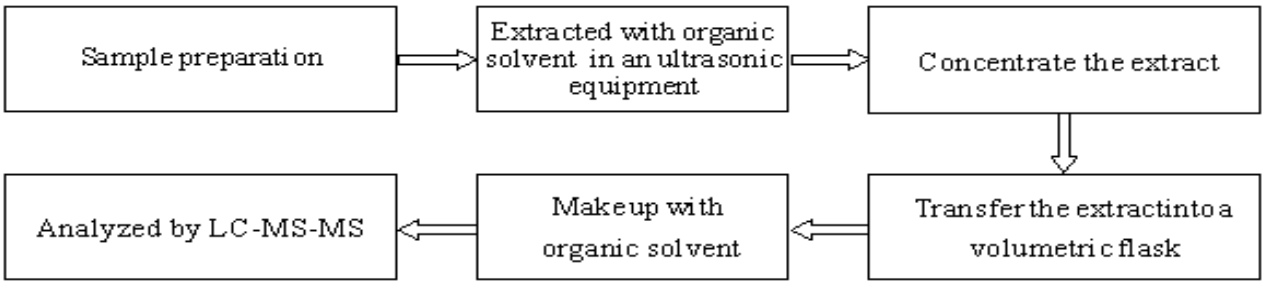
7. Hexabromocyclododecane (HBCDD)



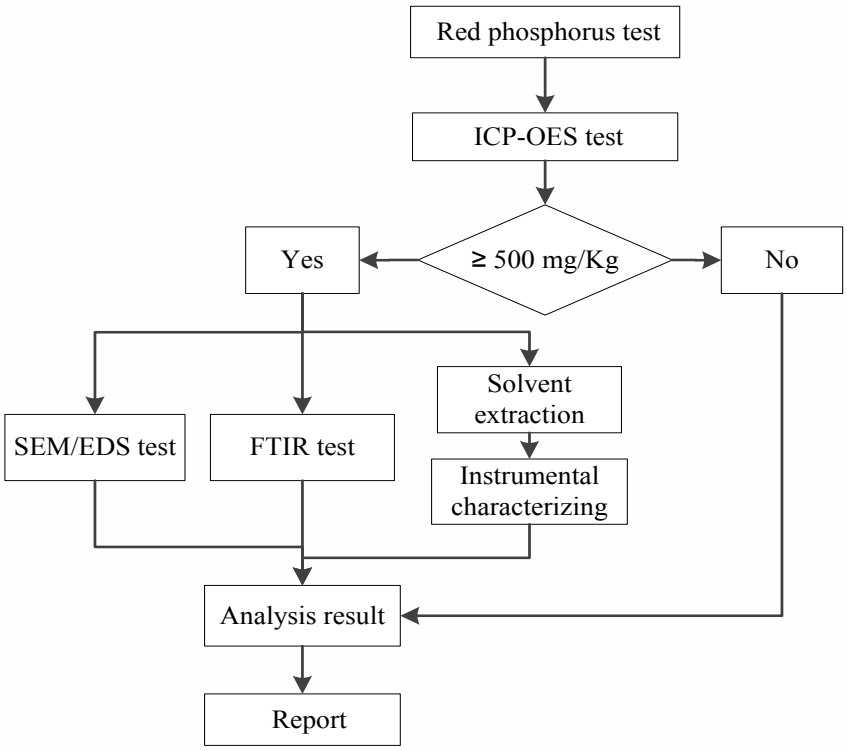
8. Fluorine (F), Chlorine (Cl), Bromine (Br), Iodine (I)



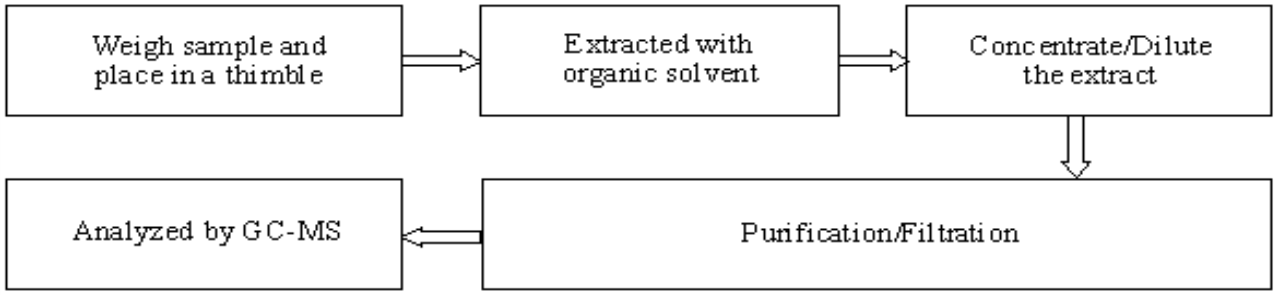
9. Perfluorooctane Sulfonates (PFOS), Perfluorooctanoic Acid (PFOA)



10. Red phosphorus



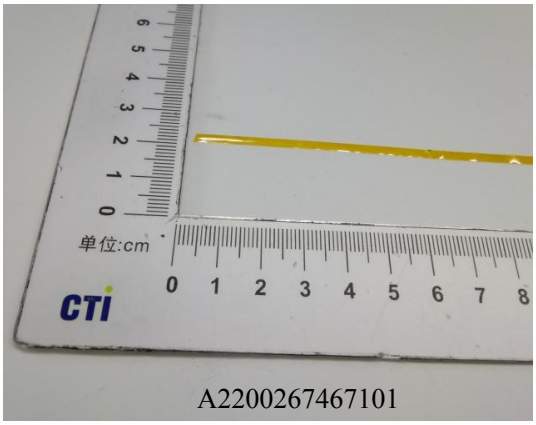
11. Polycyclic Aromatic Hydrocarbons (PAHs)



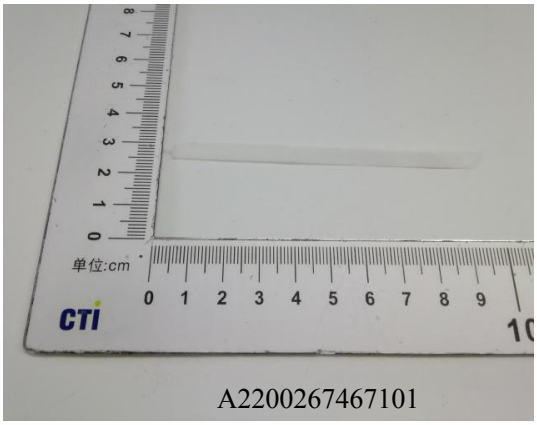
Test Report

Photo(s) of the sample(s)

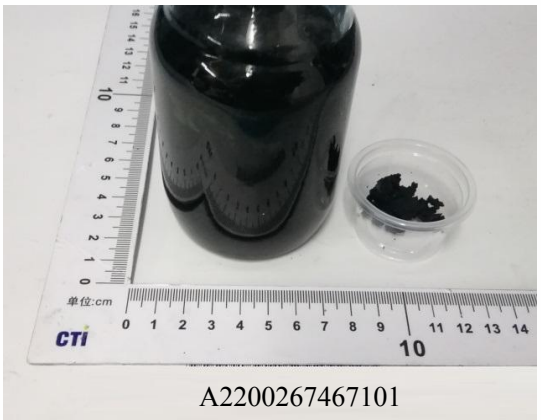
001



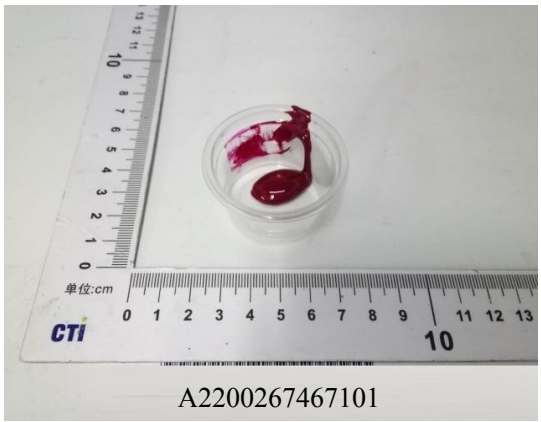
002



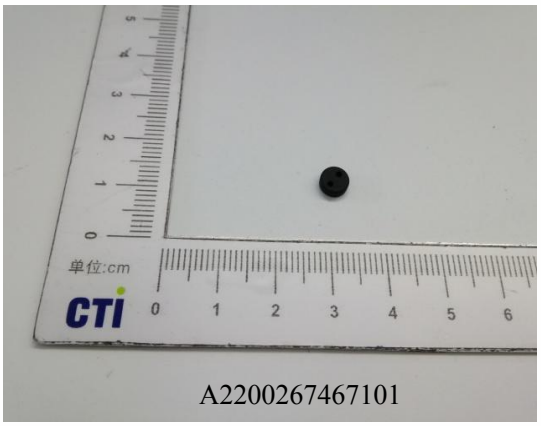
003



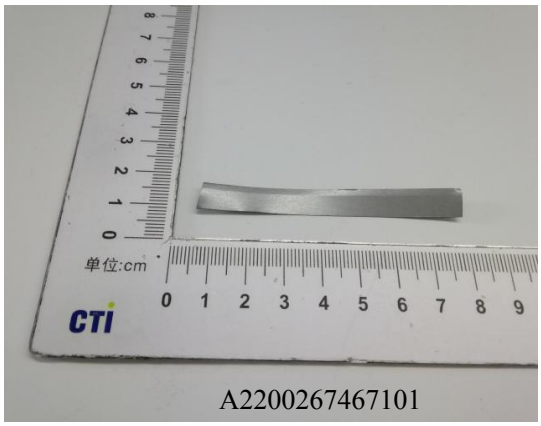
004



005

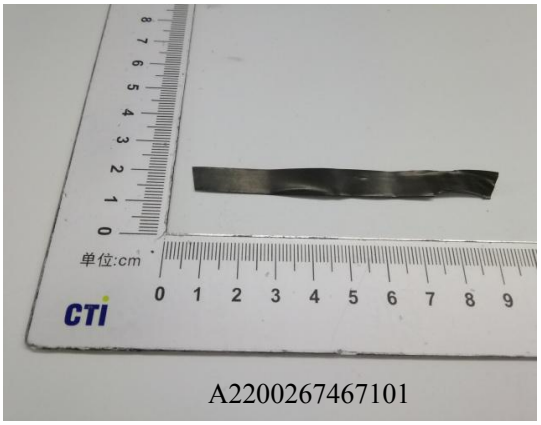


006

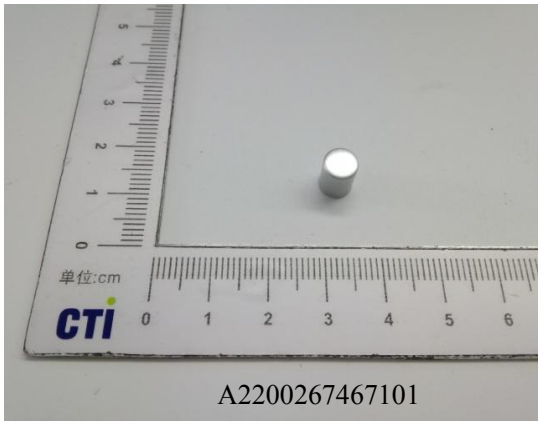


Test Report

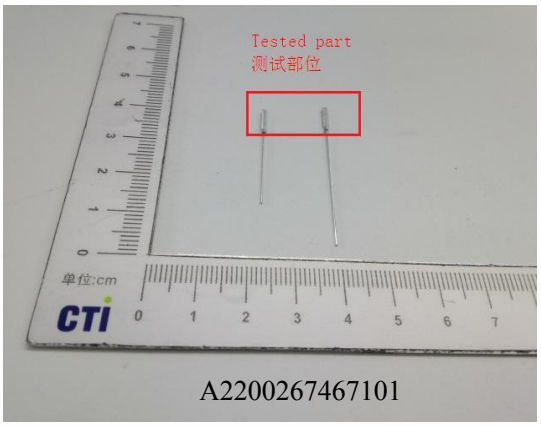
007



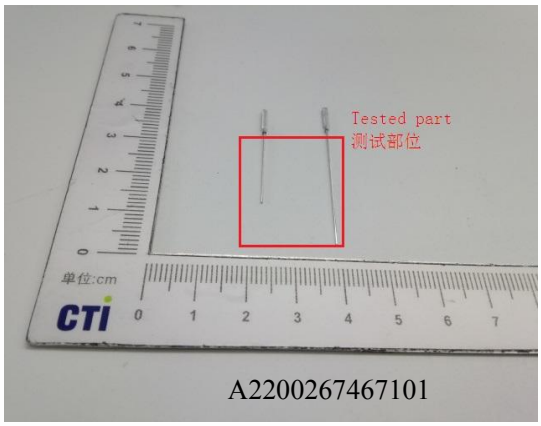
008



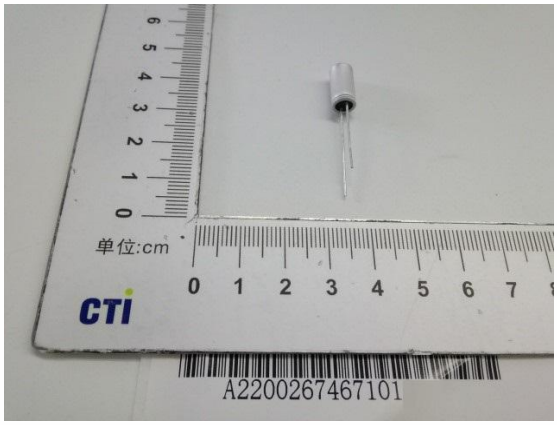
009



010



011



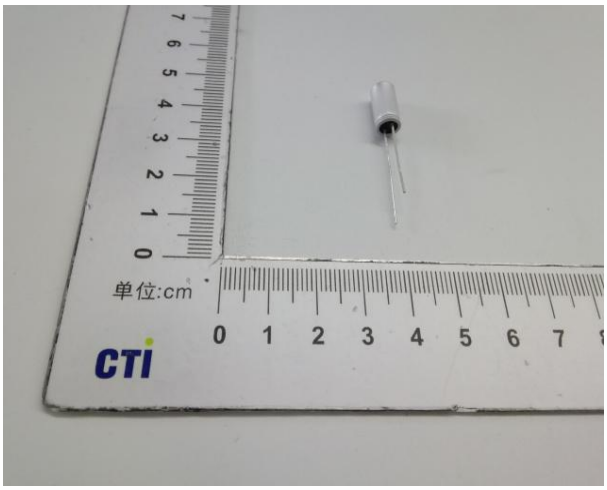
Statement:

1. This report is considered invalid without approved signature, special seal and the seal on the perforation;
2. The Company Name shown on Report and Address, the sample(s) and sample information was/were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified;
3. The result(s) shown in this report refer(s) only to the sample(s) tested;
4. Without written approval of CTI, this report can't be reproduced except in full;
5. In case of any discrepancy between the English version and Chinese version of the testing reports (if generated), the Chinese version shall prevail.

*** End of Report ***

Appendix

Client Reference Photo (Non-tested sample)



Statement:

The Appendix Information was/were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified.