



Test Report

Report No. A219035641010101

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Applicant SHANDONG XINNUO ELECTRONIC SCIENCE AND TECHNOLOGY CO., LTD /
SHANDONG DIYI ELECTRONIC SCIENCE AND TECHNOLOGY CO., LTD

Address NO.7 CHUANGYE ROAD, ECONOMIC DEVELOPMENT ZONE, YANZHOU DISTRICT,
JINING CITY, SHANDONG PROVINCE, P.R.CHINA / THE NORTH OF YANYAN ROAD,
YANZHOU DISTRICT, JINING CITY, SHANDONG PROVINCE, P.R.CHINA

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

Sample No.	Final Product Name	Sample Name(s)
001	Diode/Triode/Bridge	Chip (GPP & Triac)
002		Chip (SKY & MOS)
003		Solder
004		Epoxy Molding Compound
005		Al Wire
006		Lead Frame
007		Tin Plating

Final Product Part No. R-1/A-405/DO-41/DO-15/DO-201AD/R-6/D3K/KBP/GBU/GBJ/DBS/DBM/
DBF/MBF/MBS/MBM/ABS/ABF/SMA/SMAF/SMB/SMBF/SMC/HBS/JC/
SOD-123FL/TO-277B/GBL/KBL/KBJ/KBU/KBPC/GBPC/WOB/DFN/LBF/
LBS/SOT-23/SOT-89/SOT-223/SOT-323/SOD-123/SOD-323/SOD-523/MELF/
DO-35/LL-34/LL-41/ITO-220/TO-220/TO-262/TO-263/TO-251/TO-252/TO-3P/
TO-126/TO-247/TO-92

Sample Received Date Dec. 31, 2019
Testing Period Dec. 31, 2019 to Jan. 9, 2020

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

Tested by Yu Liu Reviewed by Jori Xia

Approved by Hill Zheng Date Jan. 13, 2020
Hill Zheng
Technical Manager



No. R187218081

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

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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)	PASS
2) As specified by client, to test Beryllium(Be), Antimony(Sb), Fluorine (F), Chlorine (Cl), Bromine (Br), Iodine (I), Bisphenol A (BPA), Phthalates, Polycyclic Aromatic Hydrocarbons (PAHs), Perfluorooctanoic Acid (PFOA), Red phosphorus in the submitted sample(s).	See page 7-11
3) Regulation (EU) 2019/1021 on persistent organic pollutants (POPs)	
- Polybrominated Diphenyl Ethers (PBDEs)	See page 16
- Perfluorooctane Sulfonates (PFOS)	PASS
- Hexabromocyclododecane (HBCDD)	PASS
- Short Chain Chlorinated Paraffins (SCCPs)	PASS
- Endosulfan	PASS
- Mirex	PASS
- Pentachlorobenzene	PASS
- Hexachlorobenzene	PASS
- Hexabromobiphenyl	PASS
- Polychlorinated Biphenyls(PCBs)	PASS
- Polychlorinated Naphthalenes (PCNs)	PASS
- Hexachlorobutadiene	PASS

***** For further details, please refer to the following page(s) *****

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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
Beryllium(Be)	Refer to US EPA 3050B:1996 & US EPA 6010D:2018	ICP-OES
	Refer to US EPA 3052:1996 & US EPA 6010D:2018	
Antimony(Sb)	Refer to US EPA 3052:1996 & US EPA 6010D:2018	ICP-OES
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
Bisphenol A (BPA)	Refer to US EPA 3550C:2007 & US EPA 8321B:2007	LC-MS-MS
Phthalates	Refer to EN 14372:2004(E)	GC-MS
Polycyclic Aromatic Hydrocarbons (PAHs)	AfPS GS 2014:01 PAK	GC-MS
Perfluorooctanoic Acid (PFOA)	Refer to DIN CEN/TS 15968:2010	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

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Test Result(s) 1

Tested Item(s)	Result			MDL	Limit
	001	002	003		
Lead (Pb)	41667 mg/kg ^{#1}	N.D.	947783 mg/kg ^{##2}	2 mg/kg	1000 mg/kg
Cadmium (Cd)	N.D.	N.D.	N.D.	2 mg/kg	100 mg/kg
Mercury (Hg)	N.D.	N.D.	N.D.	2 mg/kg	1000 mg/kg
Hexavalent Chromium (Cr(VI))	N.D.	N.D.	N.D.	8 mg/kg	1000 mg/kg
	--	--	--	0.10 µg/cm ² (LOQ)	1000 mg/kg

Tested Item(s)	Result			MDL	Limit
	004	005	006		
Lead (Pb)	N.D.	N.D.	N.D.	2 mg/kg	1000 mg/kg
Cadmium (Cd)	N.D.	N.D.	N.D.	2 mg/kg	100 mg/kg
Mercury (Hg)	N.D.	N.D.	N.D.	2 mg/kg	1000 mg/kg
Hexavalent Chromium (Cr(VI))	N.D.	--	--	8 mg/kg	1000 mg/kg
	--	N.D. ▼	N.D. ▼	0.10 µg/cm ² (LOQ)	1000 mg/kg

Tested Item(s)	Result	MDL	Limit
	007		
Lead (Pb)	12 mg/kg	2 mg/kg	1000 mg/kg
Cadmium (Cd)	N.D.	2 mg/kg	100 mg/kg
Mercury (Hg)	N.D.	2 mg/kg	1000 mg/kg
Hexavalent Chromium (Cr(VI))	--	8 mg/kg	1000 mg/kg
	N.D. ▼	0.10 µg/cm ² (LOQ)	1000 mg/kg

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Tested Item(s)	Result			MDL	Limit
	001	002	003		
Polybrominated Biphenyls(PBBs)					
Monobromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg	1000 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	Limit
	004		
Polybrominated Biphenyls(PBBs)			
Monobromobiphenyl	N.D.	5 mg/kg	1000 mg/kg
Dibromobiphenyl	N.D.	5 mg/kg	
Tribromobiphenyl	N.D.	5 mg/kg	
Tetrabromobiphenyl	N.D.	5 mg/kg	
Pentabromobiphenyl	N.D.	5 mg/kg	
Hexabromobiphenyl	N.D.	5 mg/kg	
Heptabromobiphenyl	N.D.	5 mg/kg	
Octabromobiphenyl	N.D.	5 mg/kg	
Nonabromobiphenyl	N.D.	5 mg/kg	
Decabromobiphenyl	N.D.	5 mg/kg	

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Tested Item(s)	Result			MDL	Limit
	001	002	003		
Polybrominated Diphenyl Ethers (PBDEs)					
Monobromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg	1000 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	Limit
	004		
Polybrominated Diphenyl Ethers (PBDEs)			
Monobromodiphenyl ether	N.D.	5 mg/kg	1000 mg/kg
Dibromodiphenyl ether	N.D.	5 mg/kg	
Tribromodiphenyl ether	N.D.	5 mg/kg	
Tetrabromodiphenyl ether	N.D.	5 mg/kg	
Pentabromodiphenyl ether	N.D.	5 mg/kg	
Hexabromodiphenyl ether	N.D.	5 mg/kg	
Heptabromodiphenyl ether	N.D.	5 mg/kg	
Octabromodiphenyl ether	N.D.	5 mg/kg	
Nonabromodiphenyl ether	N.D.	5 mg/kg	
Decabromodiphenyl ether	N.D.	5 mg/kg	

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Tested Item(s)	Result			MDL	Limit
	001	002	003		
Phthalates (DBP, BBP, DEHP, DIBP)					
Dibutyl phthalate (DBP) CAS#:84-74-2	N.D.	N.D.	N.D.	50 mg/kg	1000 mg/kg
Butyl benzyl phthalate (BBP) CAS#:85-68-7	N.D.	N.D.	N.D.	50 mg/kg	1000 mg/kg
Di-(2-ethylhexyl) phthalate (DEHP) CAS#:117-81-7	N.D.	N.D.	N.D.	50 mg/kg	1000 mg/kg
Diisobutyl phthalate (DIBP) CAS#:84-69-5	N.D.	N.D.	N.D.	50 mg/kg	1000 mg/kg

Tested Item(s)	Result		MDL	Limit
	004			
Phthalates (DBP, BBP, DEHP, DIBP)				
Dibutyl phthalate (DBP) CAS#:84-74-2	N.D.		50 mg/kg	1000 mg/kg
Butyl benzyl phthalate (BBP) CAS#:85-68-7	N.D.		50 mg/kg	1000 mg/kg
Di-(2-ethylhexyl) phthalate (DEHP) CAS#:117-81-7	N.D.		50 mg/kg	1000 mg/kg
Diisobutyl phthalate (DIBP) CAS#:84-69-5	N.D.		50 mg/kg	1000 mg/kg

Test Result(s) 2

Tested Item(s)	Result			MDL
	001	002	003	
Beryllium (Be)	N.D.	N.D.	N.D.	2 mg/kg

Tested Item(s)	Result			MDL
	005	006	007	
Beryllium (Be)	N.D.	N.D.	N.D.	2 mg/kg

Tested Item(s)	Result		MDL
	004		
Antimony (Sb)	3949 mg/kg		5 mg/kg

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Tested Item(s)	Result	MDL
	004	
Fluorine (F)	N.D.	10 mg/kg
Chlorine (Cl)	87 mg/kg	10 mg/kg
Bromine (Br)	2724 mg/kg	10 mg/kg
Iodine (I)	N.D.	10 mg/kg

Tested Item(s)	Result	MDL
	004	
Bisphenol A (BPA)	N.D.	1.0 mg/kg

Tested Item(s)	Result	MDL
	004	
Phthalates		
Di-n-octyl phthalate (DNOP) CAS#:117-84-0	N.D.	30 mg/kg
Di-isononyl phthalate (DINP) CAS#:28553-12-0,68515-48-0	N.D.	50 mg/kg
Di-iso-decyl phthalate (DIDP) CAS#:26761-40-0,68515-49-1	N.D.	50 mg/kg
Dimethyl phthalate (DMP) CAS#:131-11-3	N.D.	30 mg/kg
Diethyl phthalate (DEP) CAS#:84-66-2	N.D.	30 mg/kg
Dipentyl phthalate (DPP) CAS#:131-18-0	N.D.	30 mg/kg
Dicyclohexyl phthalate (DCHP) CAS#:84-61-7	N.D.	30 mg/kg
Dinonyl phthalate (DNP) CAS#:84-76-4	N.D.	30 mg/kg
Di-n-hexyl phthalate (DNHP) CAS#:84-75-3	N.D.	30 mg/kg
Bis(2-methoxyethyl) phthalate (DMEP) CAS#:117-82-8	N.D.	30 mg/kg
Diisopentylphthalate (DIPP) CAS#:605-50-5	N.D.	30 mg/kg
Diphenyl phthalate (DPhP) CAS#:84-62-8	N.D.	30 mg/kg
N-Pentyl-isopentyl phthalate (NIPP) CAS#:776297-69-9	N.D.	30 mg/kg

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Tested Item(s)	Result	MDL
① 1,2-Benzenedicarboxylic acid, di-(C7-11)-branched and linear alkyl esters (DHNUP) CAS#:68515-42-4	N.D.	50 mg/kg
① 1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP) CAS#:71888-89-6	N.D.	50 mg/kg
① 1,2-Benzenedicarboxylic acid, dipentylester, branched and linear (BADP) CAS#:84777-06-0	N.D.	50 mg/kg

Tested Item(s)	Result	MDL
	004	
Polycyclic Aromatic Hydrocarbons (PAHs)		
Naphthalene	N.D.	0.2 mg/kg
Acenaphthylene	N.D.	0.2 mg/kg
Acenaphthene	N.D.	0.2 mg/kg
Fluorene	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
Benzo(a)anthracene	N.D.	0.2 mg/kg
Chrysene	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(a)pyrene	N.D.	0.2 mg/kg
Indenol(1,2,3-cd)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
Benzo(j)fluoranthene	N.D.	0.2 mg/kg
Benzo(e)pyrene	N.D.	0.2 mg/kg
Sum (Acenaphthylene, Acenaphthene, Fluorene, Phenanthrene, Anthracene, Fluoranthene, Pyrene)	N.D.	/
Sum 18 PAHs	N.D.	/

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Limits for PAHs content (mg/kg) for material of (grip) surfaces, which are to be categorized on account of the results of the risk analysis.

Parameters	Category 1	Category 2		Category 3	
	Materials intended to be put in the mouth or materials of toys with foreseeable long-term skin contact(longer than 30 seconds)	Materials not covered by category 1, with foreseeable skin contact for longer than 30 seconds (long-term skin contact) or repeated short-term skin contact* ²		Materials not covered by category 1 or 2 with foreseeable skin contact up to 30seconds (short term skin contact)	
		Toys covered by Directive 2009/48/EC	Other products	Toys covered by Directive 2009/48/EC	Other 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
Dibenzo[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
Acenaphthylene, Acenaphthene, Fluorene, Phenanthrene, Anthracene, Fluoranthene, Pyrene	<1 Sum	<5 Sum	<10 Sum	<20 Sum	<50 Sum
Naphthalene	<1	<2		<10	
Sum 18 PAHs	<1	<5	<10	<20	<50

*² Formulation “of repeated short-term skin contact” REACH Annex XVII No. 50 supplement (REGULATION (EU) No.1272/2013)

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

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

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

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

Tested Item(s)	Result	MDL
	006	
Red phosphorus	N.D.	500 mg/kg

Remark: The sample(s) had been dissolved totally tested for Lead, Cadmium, Mercury, Antimony, Beryllium.

-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 $\mu\text{g}/\text{cm}^2$

-▼The sample is negative for Cr(VI) – The Cr(VI) concentration is below 0.10 $\mu\text{g}/\text{cm}^2$. The coating is considered a non-Cr(VI) based coating.

-①: In view of the substances are established as UVCB substances (substances of unknown or variable composition, complex reaction products or biological materials) consisting of different and variable constituents, the test results are calculated based on the main constituents of the representative compounds for substances.

-#The test result is for reference only.

-*The sample(s) was tested as a whole, because it's impossible to disassemble or separate it by current equipment and technology. The result(s) shown on this report may be different from the content of any homogeneous material.

-*¹The sample was tested after drying for 2 hours under 105°C.

-#¹According to the client's statement, the material of the sample(s) fall into exemption items 7(c)-I according to EU Directive 2011/65/EU: Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound.

-#²According to the client's statement, the material of the sample(s) fall into exemption items 7(a) according to EU Directive 2011/65/EU: Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead).

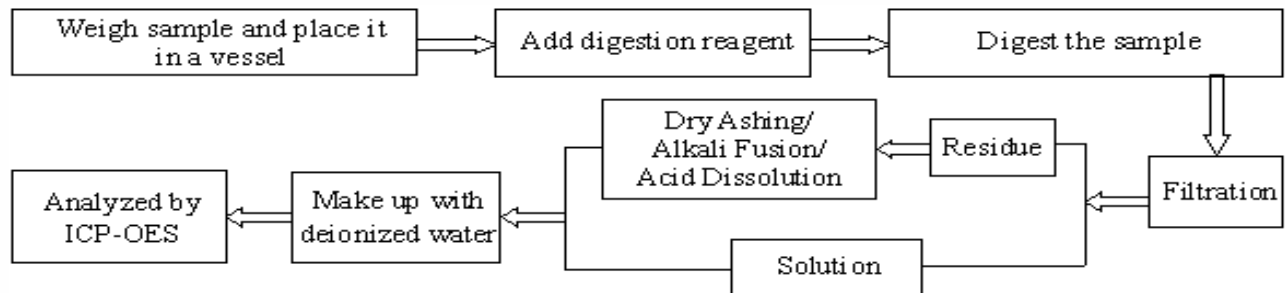
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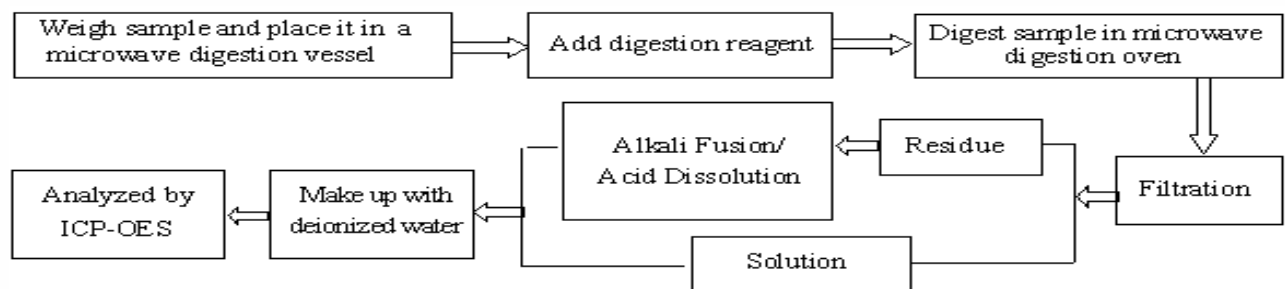
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Test Process

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

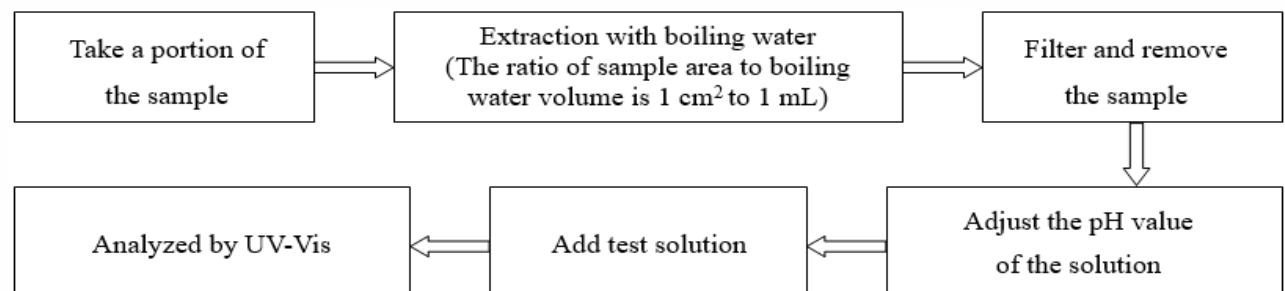


2. Mercury(Hg)

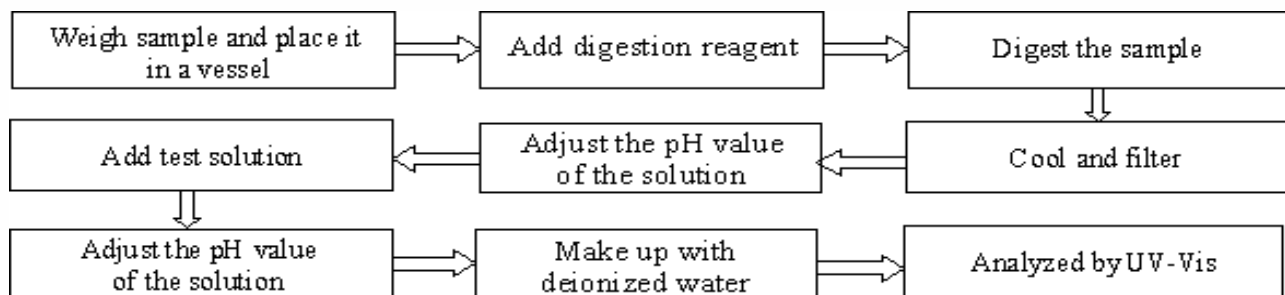


3. Hexavalent Chromium(Cr(VI))

(1) IEC 62321-7-1:2015



(2) IEC 62321-7-2:2017

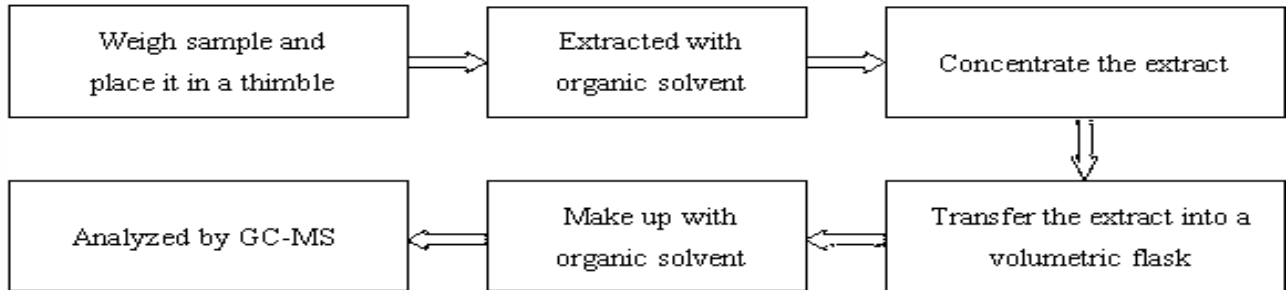


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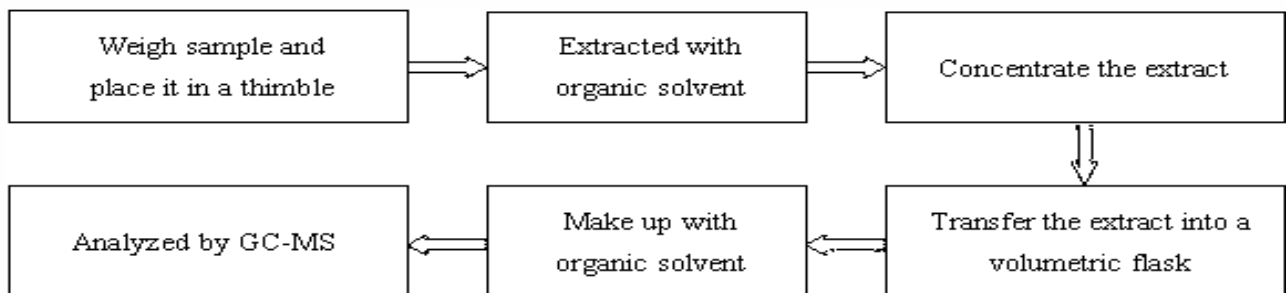
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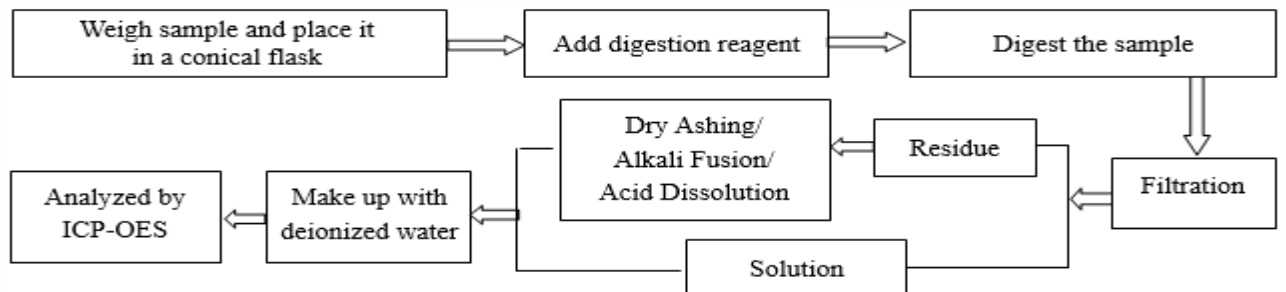
4. Polybrominated Biphenyls(PBBs), Polybrominated Diphenyl Ethers (PBDEs)



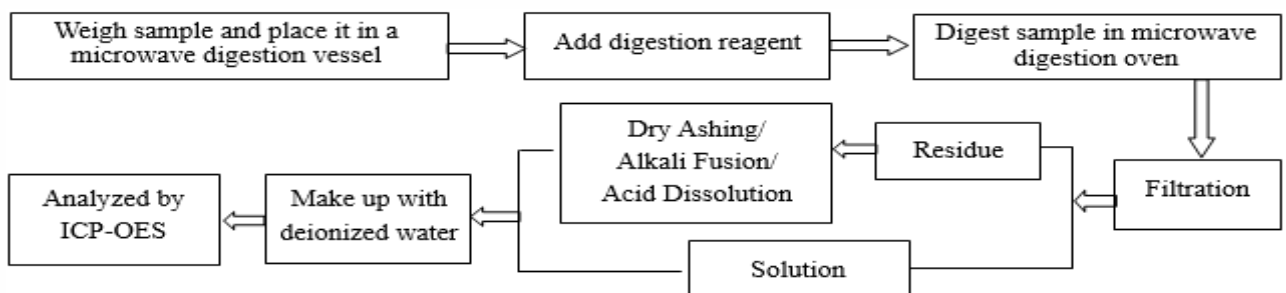
5. Phthalates (DBP, BBP, DEHP, DIBP)



6. Beryllium(Be)



7. Beryllium(Be), Antimony(Sb)

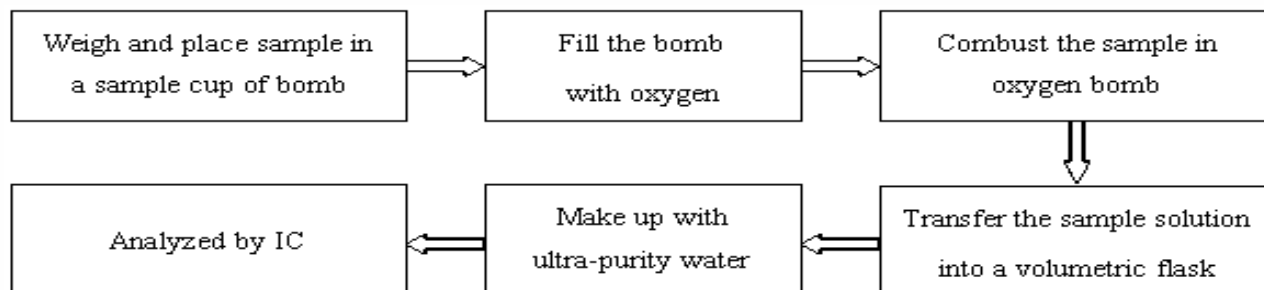


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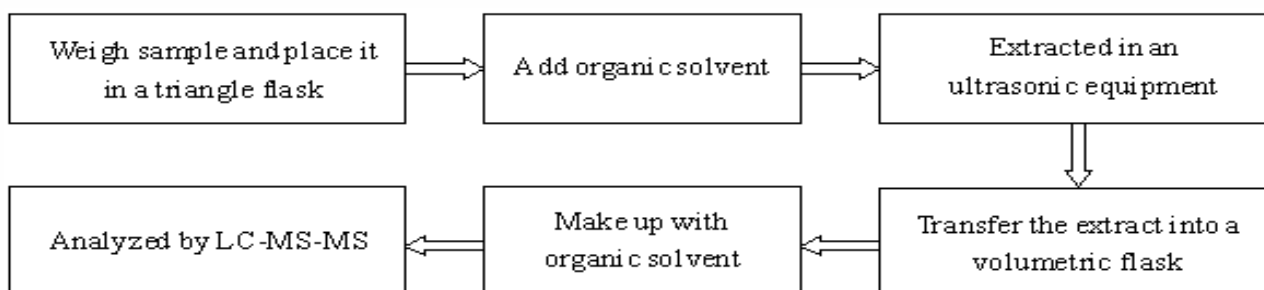
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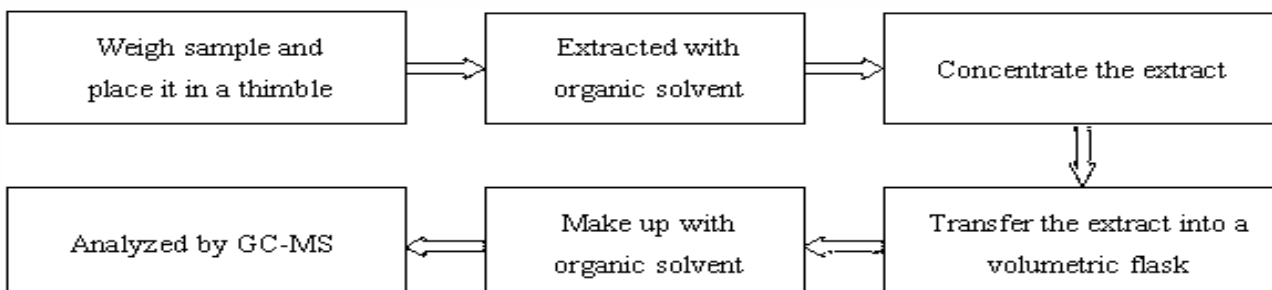
8. Fluorine (F), Chlorine (Cl), Bromine (Br), Iodine (I)



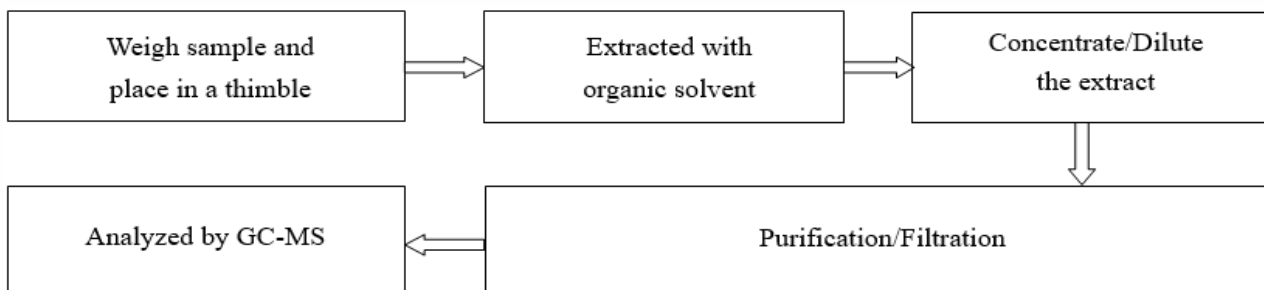
9. Bisphenol A (BPA)



10. Phthalates



11. Polycyclic Aromatic Hydrocarbons (PAHs)

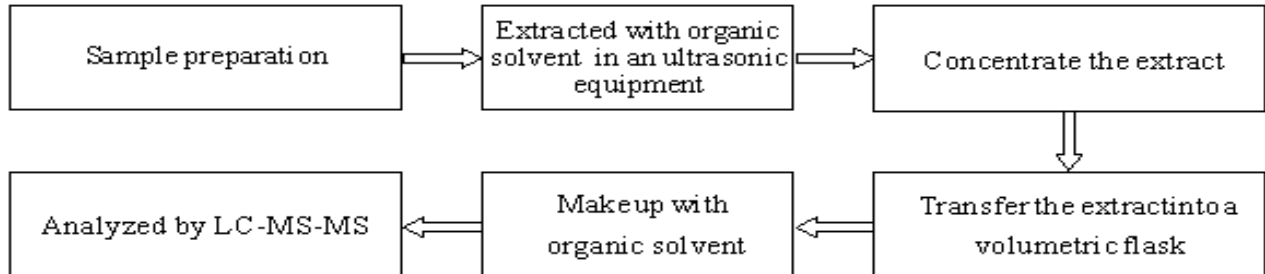


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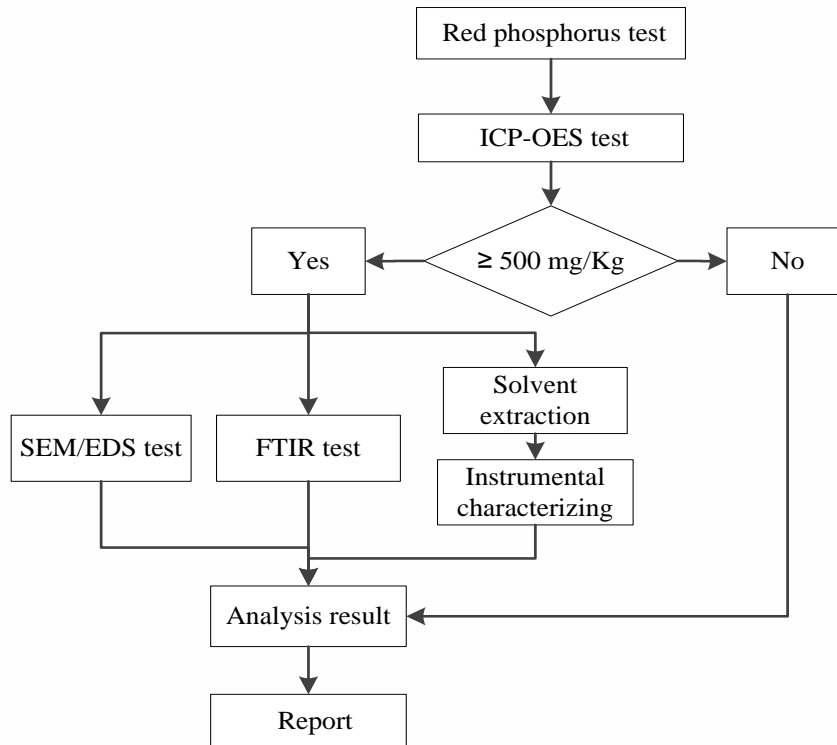
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12. Perfluorooctanoic Acid (PFOA)



13. Red phosphorus



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Test Result(s) 3

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.

<u>Tested Item(s)</u>	<u>Result (mg/kg)</u>	<u>MDL</u>
	004	(mg/kg)
Tetrabromodiphenyl ether	N.D.	5
Pentabromodiphenyl ether	N.D.	5
Hexabromodiphenyl ether	N.D.	5
Heptabromodiphenyl ether	N.D.	5

Remark:

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

▼ Perfluorooctane Sulfonates (PFOS)

Refer to method(s) US EPA 3550C:2007 & US EPA 8321B:2007, and the item(s) was/were analyzed by LC-MS-MS.

<u>Tested Item(s)</u>	<u>Result (mg/kg)</u>	<u>MDL</u>	<u>Limit</u>
	004	(mg/kg)	(mg/kg)
Perfluorooctane Sulfonates (PFOS)	N.D.	0.01	1000

Remark:

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

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▼ **Hexabromocyclododecane (HBCDD)**

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

<u>Tested Item(s)</u>	<u>Result (mg/kg)</u>	<u>MDL (mg/kg)</u>	<u>Limit (mg/kg)</u>
	004		
Hexabromocyclododecane (HBCDD)	N.D.	5	100

Remark:

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

▼ **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).

<u>Tested Item(s)</u>	<u>Result (mg/kg)</u>	<u>MDL (mg/kg)</u>	<u>Limit (mg/kg)</u>
	004		
Short Chain Chlorinated Paraffins (SCCPs)	N.D.	100	1500

Remark:

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

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▼ Endosulfan

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

<u>Tested Item(s)</u>	<u>Result (mg/kg)</u>	<u>MDL</u> (mg/kg)	<u>Limit</u> (mg/kg)
	004		
Endosulfan	N.D.	50	N.D.

Remark:

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

▼ Mirex

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

<u>Tested Item(s)</u>	<u>Result (mg/kg)</u>	<u>MDL</u> (mg/kg)	<u>Limit</u> (mg/kg)
	004		
Mirex	N.D.	5	N.D.

Remark:

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

▼ Pentachlorobenzene

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

<u>Tested Item(s)</u>	<u>Result (mg/kg)</u>	<u>MDL</u> (mg/kg)	<u>Limit</u> (mg/kg)
	004		
Pentachlorobenzene	N.D.	50	N.D.

Remark:

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

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▼ Hexachlorobenzene

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

<u>Tested Item(s)</u>	<u>Result (mg/kg)</u>	<u>MDL (mg/kg)</u>	<u>Limit (mg/kg)</u>
	004		
Hexachlorobenzene	N.D.	50	N.D.

Remark:

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

▼ Hexabromobiphenyl

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

<u>Tested Item(s)</u>	<u>Result (mg/kg)</u>	<u>MDL (mg/kg)</u>	<u>Limit (mg/kg)</u>
	004		
Hexabromobiphenyl	N.D.	5	N.D.

Remark:

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

▼ Polychlorinated Biphenyls(PCBs)

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

<u>Tested Item(s)</u>	<u>Result (mg/kg)</u>	<u>MDL (mg/kg)</u>	<u>Limit (mg/kg)</u>
	004		
Polychlorinated Biphenyls (PCBs)	N.D.	5	N.D.

Remark:

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

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▼ Polychlorinated Naphthalenes (PCNs)

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

<u>Tested Item(s)</u>	<u>Result (mg/kg)</u>	<u>MDL (mg/kg)</u>	<u>Limit (mg/kg)</u>
	004		
Polychlorinated Naphthalenes (PCNs)	N.D.	5	N.D.

Remark:

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

▼ Hexachlorobutadiene

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

<u>Tested Item(s)</u>	<u>Result (mg/kg)</u>	<u>MDL (mg/kg)</u>	<u>Limit (mg/kg)</u>
	004		
Hexachlorobutadiene	N.D.	50	N.D.

Remark:

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

Sample/Part Description

- 001 Chip(Tested as a whole)*
- 002 Chip(Tested as a whole)*
- 003 Dark gray paste(Dry weight)*¹
- 004 Dark gray solid
- 005 Silver-white metal
- 006 Cupreous metal
- 007 Silvery metal

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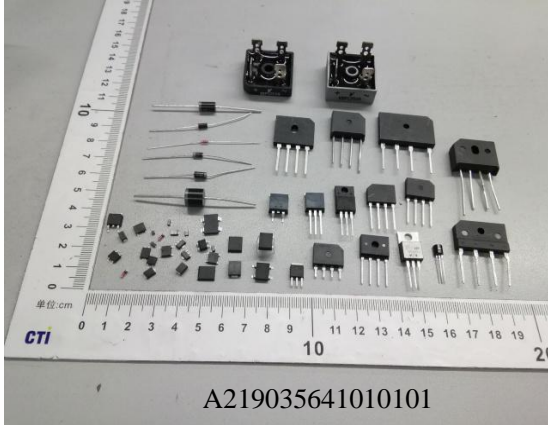
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Photo(s) of the sample(s)

Final Product

001

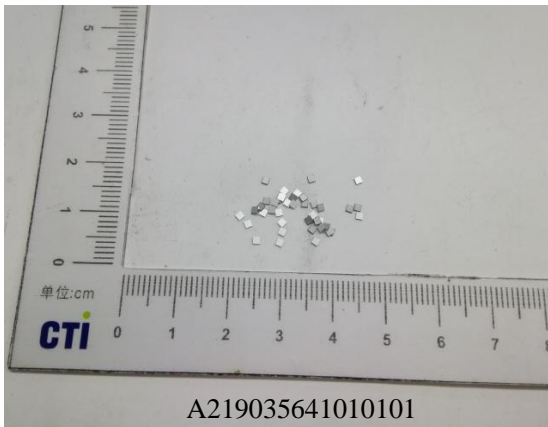


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002

003

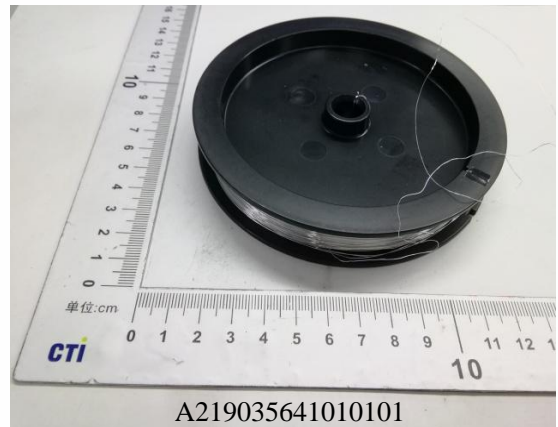
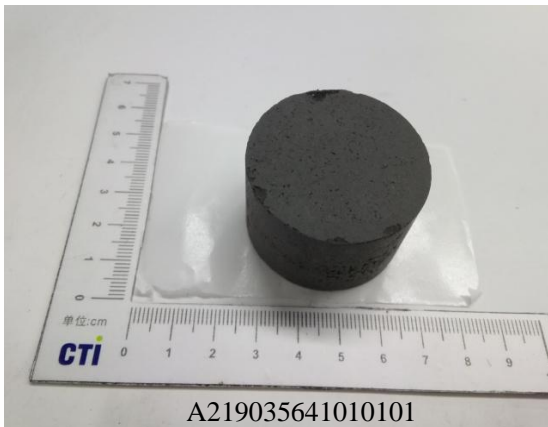


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004

005



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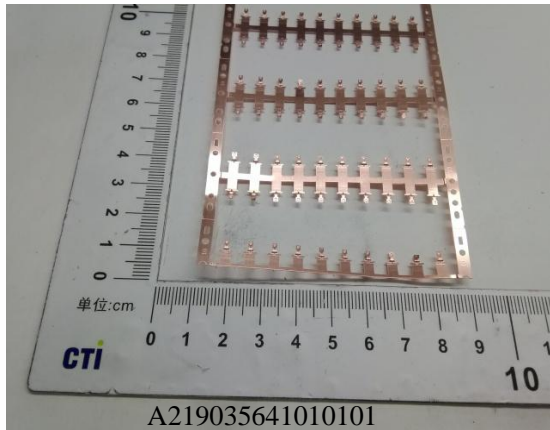
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006



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*** End of Report ***

Statement:

1. This report is considered invalid without approved signature, special seal and the seal on the perforation;
2. The sample(s) and sample information was/were provided by the client 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.