



# Test Report

Report No. A2250331533101013

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**Company Name** ZHEJIANG RECTRON ELECTRONIC CO.,LTD.

**shown on Report**

**Address** NO.28 LIZHENG ROAD, HUIMIN DISTRICT,JIASHAN COUNTY, JIAXING CITY,ZHEJIANG PROVINCE, CHINA/ NO.111 CHENGONG ROAD, HUIMIN DISTRICT,JIASHAN COUNTY, JIAXING CITY,ZHEJIANG PROVINCE, CHINA

**Sample Received Date** May 28, 2025

**Testing Period** May 28, 2025 to Jun. 16, 2025

**Test Requested** As specified by client, to test Lead (Pb), Cadmium (Cd), Mercury (Hg), Hexavalent Chromium (Cr(VI)), Polybrominated Biphenyls (PBBs), Polybrominated Diphenyl Ethers (PBDEs), Beryllium(Be), Antimony(Sb), Fluorine (F), Chlorine (Cl), Bromine (Br), Perfluorooctanoic Acid(PFOA), Perfluorooctane Sulfonates(PFOS), Phthalates, Asbestos in the submitted sample(s).

**Test Method/Test Result(s)** Please refer to the following page(s).



Approved by

*Chen Kaimin*

Date

Jun. 16, 2025

Chen kaimin

Lab Manager

No. R748861495

Centre Testing International Pinbiao(Shanghai) Co., Ltd.

No.1351, Wanfang Road, Minhang District, Shanghai, China

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

CTI Sample ID	Sample Name(s)	Model No.	Material	Reference Report No. - CTI Sample ID
001	Bonding Wire	WS-CW	Copper	A2250331533101001
002	Coating / Silicon Rubber	XE13-C2946	Silicon Rubber	A2250331533101002
003	Solder Paste	NC-777	Pb、Sn、Ag	A2250331533101003-003
004	Solder Wafer	Sn5Ag2.5Pb92.5	Pb、Sn、Ag	A2250331533101004
005	Plating	Sn99.90AA (99.9% min)	Tin	A2250331533101005
006	Lead Wire/Lead Frame	CDA/C1940, KFC/C19210	Copper	A2250331533101006
007	Dice Wafer	GPP Wafer	Silicon	A2250331533101007
009	None HF Molding	EME-E1200	Epoxy	A2250331533101009
010	Ink	UV NO.3	--	A2250331533101010
011	Solder Paste	NC-777	Pb、Sn、Ag	A2250331533101003-011

Remark:

The samples with the reference information in the table above are non-tested in this report. According to the client's statement, test results and the photos of the "CTI Sample ID" column reference to "Reference Report No. - CTI Sample ID." column.

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## Test Method

Tested Item(s)	Test Method	Measured Equipment(s)
Lead (Pb)	IEC 62321-5:2013	ICP-OES
	Refer to IEC 62321-5:2013	
Cadmium (Cd)	IEC 62321-5:2013	ICP-OES
	Refer to IEC 62321-5:2013	
Mercury (Hg)	IEC 62321-4:2013+AMD1:2017 CSV	ICP-OES
	Refer to IEC 62321-4:2013+AMD1:2017 CSV	
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 62321-12:2023	GC-MS
Polybrominated Diphenyl Ethers (PBDEs)	IEC 62321-12:2023	GC-MS
Phthalates (DBP, BBP, DEHP, DIBP)	IEC 62321-12:2023	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 3050B:1996 & US EPA 6010D:2018	ICP-OES
	Refer to US EPA 3052:1996 & US EPA 6010D:2018	
Fluorine (F)	EN 14582:2016	IC
Chlorine (Cl)	EN 14582:2016	IC
Bromine (Br)	EN 14582:2016	IC
Perfluorooctanoic Acid(PFOA)	Refer to DIN CEN/TS 15968:2010	LC-MS-MS/LC-MS
Perfluorooctane Sulfonates(PFOS)	Refer to DIN CEN/TS 15968:2010	LC-MS-MS/LC-MS
Phthalates	Refer to EN 14372:2004(E)	GC-MS
Asbestos	ISO 22262-1:2012+NIOSH 9000:2015+NIOSH 9002:1994	PLM+XRD

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## Test Result(s)

Tested Item(s)	Result			MDL
	001	002	003	
Lead (Pb)	N.D.	N.D.	929288 mg/kg*	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.▼	0.10 µg/cm <sup>2</sup> (LOQ)
	--	N.D.	--	8 mg/kg

Tested Item(s)	Result			MDL
	004	005	006	
Lead (Pb)	948004 mg/kg*	160 mg/kg	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.▼	0.10 µg/cm <sup>2</sup> (LOQ)
	--	--	--	8 mg/kg

Tested Item(s)	Result			MDL
	007	009	010	
Lead (Pb)	30950 mg/kg* <sup>2</sup>	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))	--	--	--	0.10 µg/cm <sup>2</sup> (LOQ)
	N.D.	N.D.	N.D.	8 mg/kg

Tested Item(s)	Result	MDL
	011	
Lead (Pb)	1329 mg/kg* <sup>1</sup>	2 mg/kg
Cadmium (Cd)	N.D.	2 mg/kg
Mercury (Hg)	N.D.	2 mg/kg
Hexavalent Chromium (Cr(VI))	--	0.10 µg/cm <sup>2</sup> (LOQ)
	N.D.	8 mg/kg

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Tested Item(s)	Result			MDL
	002	007	009	
Polybrominated Biphenyls (PBBs)				
Monobromobiphenyl	N.D.	N.D.	N.D.	25 mg/kg
Dibromobiphenyl	N.D.	N.D.	N.D.	25 mg/kg
Tribromobiphenyl	N.D.	N.D.	N.D.	25 mg/kg
Tetrabromobiphenyl	N.D.	N.D.	N.D.	25 mg/kg
Pentabromobiphenyl	N.D.	N.D.	N.D.	25 mg/kg
Heptabromobiphenyl	N.D.	N.D.	N.D.	25 mg/kg
Hexabromobiphenyl	N.D.	N.D.	N.D.	25 mg/kg
Octabromobiphenyl	N.D.	N.D.	N.D.	25 mg/kg
Nonabromobiphenyl	N.D.	N.D.	N.D.	25 mg/kg
Decabromobiphenyl	N.D.	N.D.	N.D.	25 mg/kg

Tested Item(s)	Result		MDL
	010	011	
Polybrominated Biphenyls (PBBs)			
Monobromobiphenyl	N.D.	N.D.	25 mg/kg
Dibromobiphenyl	N.D.	N.D.	25 mg/kg
Tribromobiphenyl	N.D.	N.D.	25 mg/kg
Tetrabromobiphenyl	N.D.	N.D.	25 mg/kg
Pentabromobiphenyl	N.D.	N.D.	25 mg/kg
Heptabromobiphenyl	N.D.	N.D.	25 mg/kg
Hexabromobiphenyl	N.D.	N.D.	25 mg/kg
Octabromobiphenyl	N.D.	N.D.	25 mg/kg
Nonabromobiphenyl	N.D.	N.D.	25 mg/kg
Decabromobiphenyl	N.D.	N.D.	25 mg/kg

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Tested Item(s)	Result			MDL
	002	007	009	
Polybrominated Diphenyl Ethers (PBDEs)				
Monobromodiphenyl ether	N.D.	N.D.	N.D.	25 mg/kg
Dibromodiphenyl ether	N.D.	N.D.	N.D.	25 mg/kg
Tribromodiphenyl ether	N.D.	N.D.	N.D.	25 mg/kg
Tetrabromodiphenyl ether	N.D.	N.D.	N.D.	25 mg/kg
Pentabromodiphenyl ether	N.D.	N.D.	N.D.	25 mg/kg
Hexabromodiphenyl ether	N.D.	N.D.	N.D.	25 mg/kg
Heptabromodiphenyl ether	N.D.	N.D.	N.D.	25 mg/kg
Octabromodiphenyl ether	N.D.	N.D.	N.D.	25 mg/kg
Nonabromodiphenyl ether	N.D.	N.D.	N.D.	25 mg/kg
Decabromodiphenyl ether	N.D.	N.D.	N.D.	25 mg/kg

Tested Item(s)	Result		MDL
	010	011	
Polybrominated Diphenyl Ethers (PBDEs)			
Monobromodiphenyl ether	N.D.	N.D.	25 mg/kg
Dibromodiphenyl ether	N.D.	N.D.	25 mg/kg
Tribromodiphenyl ether	N.D.	N.D.	25 mg/kg
Tetrabromodiphenyl ether	N.D.	N.D.	25 mg/kg
Pentabromodiphenyl ether	N.D.	N.D.	25 mg/kg
Hexabromodiphenyl ether	N.D.	N.D.	25 mg/kg
Heptabromodiphenyl ether	N.D.	N.D.	25 mg/kg
Octabromodiphenyl ether	N.D.	N.D.	25 mg/kg
Nonabromodiphenyl ether	N.D.	N.D.	25 mg/kg
Decabromodiphenyl ether	N.D.	N.D.	25 mg/kg

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Tested Item(s)	Result			MDL
	001	003	004	
Polybrominated Biphenyls (PBBs)				
Monobromobiphenyl	N.D.	N.D.	N.D.	25 mg/kg
Dibromobiphenyl	N.D.	N.D.	N.D.	25 mg/kg
Tribromobiphenyl	N.D.	N.D.	N.D.	25 mg/kg
Tetrabromobiphenyl	N.D.	N.D.	N.D.	25 mg/kg
Pentabromobiphenyl	N.D.	N.D.	N.D.	25 mg/kg
Hexabromobiphenyl	N.D.	N.D.	N.D.	25 mg/kg
Heptabromobiphenyl	N.D.	N.D.	N.D.	25 mg/kg
Octabromobiphenyl	N.D.	N.D.	N.D.	25 mg/kg
Nonabromobiphenyl	N.D.	N.D.	N.D.	25 mg/kg
Decabromobiphenyl	N.D.	N.D.	N.D.	25 mg/kg

Tested Item(s)	Result	MDL
	006	
Polybrominated Biphenyls (PBBs)		
Monobromobiphenyl	N.D.	25 mg/kg
Dibromobiphenyl	N.D.	25 mg/kg
Tribromobiphenyl	N.D.	25 mg/kg
Tetrabromobiphenyl	N.D.	25 mg/kg
Pentabromobiphenyl	N.D.	25 mg/kg
Hexabromobiphenyl	N.D.	25 mg/kg
Heptabromobiphenyl	N.D.	25 mg/kg
Octabromobiphenyl	N.D.	25 mg/kg
Nonabromobiphenyl	N.D.	25 mg/kg
Decabromobiphenyl	N.D.	25 mg/kg

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Tested Item(s)	Result			MDL
	001	003	004	
Polybrominated Diphenyl Ethers (PBDEs)				
Monobromodiphenyl ether	N.D.	N.D.	N.D.	25 mg/kg
Dibromodiphenyl ether	N.D.	N.D.	N.D.	25 mg/kg
Tribromodiphenyl ether	N.D.	N.D.	N.D.	25 mg/kg
Tetrabromodiphenyl ether	N.D.	N.D.	N.D.	25 mg/kg
Pentabromodiphenyl ether	N.D.	N.D.	N.D.	25 mg/kg
Hexabromodiphenyl ether	N.D.	N.D.	N.D.	25 mg/kg
Heptabromodiphenyl ether	N.D.	N.D.	N.D.	25 mg/kg
Octabromodiphenyl ether	N.D.	N.D.	N.D.	25 mg/kg
Nonabromodiphenyl ether	N.D.	N.D.	N.D.	25 mg/kg
Decabromodiphenyl ether	N.D.	N.D.	N.D.	25 mg/kg

Tested Item(s)	Result	MDL
	006	
Polybrominated Diphenyl Ethers (PBDEs)		
Monobromodiphenyl ether	N.D.	25 mg/kg
Dibromodiphenyl ether	N.D.	25 mg/kg
Tribromodiphenyl ether	N.D.	25 mg/kg
Tetrabromodiphenyl ether	N.D.	25 mg/kg
Pentabromodiphenyl ether	N.D.	25 mg/kg
Hexabromodiphenyl ether	N.D.	25 mg/kg
Heptabromodiphenyl ether	N.D.	25 mg/kg
Octabromodiphenyl ether	N.D.	25 mg/kg
Nonabromodiphenyl ether	N.D.	25 mg/kg
Decabromodiphenyl ether	N.D.	25 mg/kg



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Tested Item(s)	Result			MDL
	002	007	009	
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
	010	011	
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

Tested Item(s)	Result			MDL
	001	003	004	
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

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Tested Item(s)	Result	MDL
	006	
Phthalates (DBP, BBP, DEHP, DIBP)		
Dibutyl phthalate (DBP) CAS#:84-74-2	N.D.	50 mg/kg
Butyl benzyl phthalate (BBP) CAS#:85-68-7	N.D.	50 mg/kg
Di-(2-ethylhexyl) phthalate (DEHP) CAS#:117-81-7	N.D.	50 mg/kg
Diisobutyl phthalate (DIBP) CAS#:84-69-5	N.D.	50 mg/kg

Tested Item(s)	Result	MDL
	005	
Polybrominated Biphenyls (PBBs)		
Monobromobiphenyl	N.D.	25 mg/kg
Dibromobiphenyl	N.D.	25 mg/kg
Tribromobiphenyl	N.D.	25 mg/kg
Tetrabromobiphenyl	N.D.	25 mg/kg
Pentabromobiphenyl	N.D.	25 mg/kg
Hexabromobiphenyl	N.D.	25 mg/kg
Heptabromobiphenyl	N.D.	25 mg/kg
Octabromobiphenyl	N.D.	25 mg/kg
Nonabromobiphenyl	N.D.	25 mg/kg
Decabromobiphenyl	N.D.	25 mg/kg

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Tested Item(s)	Result	MDL
	005	
Polybrominated Diphenyl Ethers (PBDEs)		
Monobromodiphenyl ether	N.D.	25 mg/kg
Dibromodiphenyl ether	N.D.	25 mg/kg
Tribromodiphenyl ether	N.D.	25 mg/kg
Tetrabromodiphenyl ether	N.D.	25 mg/kg
Pentabromodiphenyl ether	N.D.	25 mg/kg
Hexabromodiphenyl ether	N.D.	25 mg/kg
Heptabromodiphenyl ether	N.D.	25 mg/kg
Octabromodiphenyl ether	N.D.	25 mg/kg
Nonabromodiphenyl ether	N.D.	25 mg/kg
Decabromodiphenyl ether	N.D.	25 mg/kg

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

Tested Item(s)	Result			MDL
	001	003	004	
Beryllium (Be)	N.D.	N.D.	N.D.	10 mg/kg

Tested Item(s)	Result	MDL
	006	
Beryllium (Be)	N.D.	10 mg/kg

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Tested Item(s)	Result	MDL
	005	
Beryllium (Be)	N.D.	10 mg/kg

Tested Item(s)	Result		MDL
	007	011	
Beryllium (Be)	N.D.	N.D.	10 mg/kg

Tested Item(s)	Result			MDL
	001	003	004	
Antimony (Sb)	N.D.	N.D.	N.D.	10 mg/kg

Tested Item(s)	Result	MDL
	006	
Antimony (Sb)	N.D.	10 mg/kg

Tested Item(s)	Result			MDL
	002	007	009	
Antimony (Sb)	N.D.	N.D.	6190 mg/kg	10 mg/kg

Tested Item(s)	Result		MDL
	010	011	
Antimony (Sb)	N.D.	N.D.	10 mg/kg

Tested Item(s)	Result	MDL
	005	
Antimony (Sb)	N.D.	10 mg/kg

Tested Item(s)	Result			MDL
	002	003	007	
Fluorine (F)	N.D.	N.D.	N.D.	10 mg/kg
Chlorine (Cl)	N.D.	N.D.	N.D.	10 mg/kg
Bromine (Br)	N.D.	N.D.	N.D.	10 mg/kg

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Tested Item(s)	Result			MDL
	009	010	011	
Fluorine (F)	N.D.	N.D.	N.D.	10 mg/kg
Chlorine (Cl)	140 mg/kg	234 mg/kg	N.D.	10 mg/kg
Bromine (Br)	7879 mg/kg	N.D.	3196 mg/kg	10 mg/kg

Tested Item(s)	Result	MDL
	010	
Perfluorooctanoic Acid (PFOA)	N.D.	0.010 mg/kg

Tested Item(s)	Result	MDL
	010	
Perfluorooctane Sulfonates (PFOS)	N.D.	0.010 mg/kg

Tested Item(s)	Result			MDL
	001	002	003	
Phthalates				
Butyl benzyl phthalate (BBP) CAS#:85-68-7	N.D.	N.D.	N.D.	50 mg/kg
Bis(2-methoxyethyl) phthalate (DMEP) CAS#:117-82-8	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
Dibutyl phthalate (DBP) CAS#:84-74-2	N.D.	N.D.	N.D.	50 mg/kg
Di-n-hexyl phthalate (DNHP/DHEXP) CAS#:84-75-3	N.D.	N.D.	N.D.	50 mg/kg
Dipentyl phthalate (DPP/DPENP) CAS#:131-18-0	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
Di-iso-decyl phthalate (DIDP) CAS#:26761-40-0,68515-49-1	N.D.	N.D.	N.D.	50 mg/kg

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Tested Item(s)	Result			MDL
	001	002	003	
Phthalates				
Di-isononyl phthalate (DINP) CAS#:28553-12-0,68515-48-0	N.D.	N.D.	N.D.	50 mg/kg
Diisopentylphthalate (DIPP) CAS#:605-50-5	N.D.	N.D.	N.D.	50 mg/kg
Di-n-octyl phthalate (DNOP) CAS#:117-84-0	N.D.	N.D.	N.D.	50 mg/kg
N-Pentyl-isopentyl phthalate (NIPP) CAS#:776297-69-9	N.D.	N.D.	N.D.	100 mg/kg

Tested Item(s)	Result			MDL
	004	005	006	
Phthalates				
Butyl benzyl phthalate (BBP) CAS#:85-68-7	N.D.	N.D.	N.D.	50 mg/kg
Bis(2-methoxyethyl) phthalate (DMEP) CAS#:117-82-8	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
Dibutyl phthalate (DBP) CAS#:84-74-2	N.D.	N.D.	N.D.	50 mg/kg
Di-n-hexyl phthalate (DNHP/DHEXP) CAS#:84-75-3	N.D.	N.D.	N.D.	50 mg/kg
Dipentyl phthalate (DPP/DPENP) CAS#:131-18-0	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
Di-iso-decyl phthalate (DIDP) CAS#:26761-40-0,68515-49-1	N.D.	N.D.	N.D.	50 mg/kg
Di-isononyl phthalate (DINP) CAS#:28553-12-0,68515-48-0	N.D.	N.D.	N.D.	50 mg/kg
Diisopentylphthalate (DIPP) CAS#:605-50-5	N.D.	N.D.	N.D.	50 mg/kg
Di-n-octyl phthalate (DNOP) CAS#:117-84-0	N.D.	N.D.	N.D.	50 mg/kg
N-Pentyl-isopentyl phthalate (NIPP) CAS#:776297-69-9	N.D.	N.D.	N.D.	100 mg/kg

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Tested Item(s)	Result			MDL
	007	009	010	
Phthalates				
Butyl benzyl phthalate (BBP) CAS#:85-68-7	N.D.	N.D.	N.D.	50 mg/kg
Bis(2-methoxyethyl) phthalate (DMEP) CAS#:117-82-8	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
Dibutyl phthalate (DBP) CAS#:84-74-2	N.D.	N.D.	N.D.	50 mg/kg
Di-n-hexyl phthalate (DNHP/DHEXP) CAS#:84-75-3	N.D.	N.D.	N.D.	50 mg/kg
Dipentyl phthalate (DPP/DPENP) CAS#:131-18-0	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
Di-iso-decyl phthalate (DIDP) CAS#:26761-40-0,68515-49-1	N.D.	N.D.	N.D.	50 mg/kg
Di-isononyl phthalate (DINP) CAS#:28553-12-0,68515-48-0	N.D.	N.D.	N.D.	50 mg/kg
Diisopentylphthalate (DIPP) CAS#:605-50-5	N.D.	N.D.	N.D.	50 mg/kg
Di-n-octyl phthalate (DNOP) CAS#:117-84-0	N.D.	N.D.	N.D.	50 mg/kg
N-Pentyl-isopentyl phthalate (NIPP) CAS#:776297-69-9	N.D.	N.D.	N.D.	100 mg/kg

Tested Item(s)	Result	MDL
	011	
Phthalates		
Butyl benzyl phthalate (BBP) CAS#:85-68-7	N.D.	50 mg/kg
Bis(2-methoxyethyl) phthalate (DMEP) CAS#:117-82-8	N.D.	50 mg/kg
Di-(2-ethylhexyl) phthalate (DEHP) CAS#:117-81-7	N.D.	50 mg/kg

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Tested Item(s)	Result	MDL
	011	
Phthalates		
Dibutyl phthalate (DBP) CAS#:84-74-2	N.D.	50 mg/kg
Di-n-hexyl phthalate (DNHP/DHEXP) CAS#:84-75-3	N.D.	50 mg/kg
Dipentyl phthalate (DPP/DPENP) CAS#:131-18-0	N.D.	50 mg/kg
Diisobutyl phthalate (DIBP) CAS#:84-69-5	N.D.	50 mg/kg
Di-iso-decyl phthalate (DIDP) CAS#:26761-40-0,68515-49-1	N.D.	50 mg/kg
Di-isononyl phthalate (DINP) CAS#:28553-12-0,68515-48-0	N.D.	50 mg/kg
Diisopentylphthalate (DIPP) CAS#:605-50-5	N.D.	50 mg/kg
Di-n-octyl phthalate (DNOP) CAS#:117-84-0	N.D.	50 mg/kg
N-Pentyl-isopentyl phthalate (NIPP) CAS#:776297-69-9	N.D.	100 mg/kg

Material Category	Substances/CAS Numbers	Results				
		001	002	003	004	005
Asbestos (CAS 1332-21-4)	Chrysotile/12001-29-5	N.A.D.	N.A.D.	N.A.D.	N.A.D.	N.A.D.
	Crocidolite/12001-28-4	N.A.D.	N.A.D.	N.A.D.	N.A.D.	N.A.D.
	Amosite /12172-73-5	N.A.D.	N.A.D.	N.A.D.	N.A.D.	N.A.D.
	Tremolite Asbestos/ 77536-68-6	N.A.D.	N.A.D.	N.A.D.	N.A.D.	N.A.D.
	Actinolite Asbestos /77536-66-4	N.A.D.	N.A.D.	N.A.D.	N.A.D.	N.A.D.
	Anthophyllite Asbestos/77536-67-5	N.A.D.	N.A.D.	N.A.D.	N.A.D.	N.A.D.



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Material Category	Substances/CAS Numbers	Results				
		006	007	009	010	011
Asbestos (CAS 1332-21-4)	Chrysotile/12001-29-5	N.A.D.	N.A.D.	N.A.D.	N.A.D.	N.A.D.
	Crocidolite/12001-28-4	N.A.D.	N.A.D.	N.A.D.	N.A.D.	N.A.D.
	Amosite /12172-73-5	N.A.D.	N.A.D.	N.A.D.	N.A.D.	N.A.D.
	Tremolite Asbestos/ 77536-68-6	N.A.D.	N.A.D.	N.A.D.	N.A.D.	N.A.D.
	Actinolite Asbestos /77536-66-4	N.A.D.	N.A.D.	N.A.D.	N.A.D.	N.A.D.
	Anthophyllite Asbestos/77536-67-5	N.A.D.	N.A.D.	N.A.D.	N.A.D.	N.A.D.

Sample/Part Description

No.	CTI Sample ID	Description
1	001	Cupreous metal wire
2	002	White liquid(dry weight)*3
3	003	Silvery metal
4	004	Silvery metal
5	005	Silvery plating
6	006	Cupreous metal
7	007	Chip
8	009	Dark grey solid
9	010	Silvery ink*4
10	011	Brown paste*4

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

-MDL = Method Detection Limit

-N.D. = Not Detected (<MDL or LOQ)

-mg/kg = ppm = parts per million

-LOQ = Limit of Quantification, The LOQ of Hexavalent chromium is 0.10 µg/cm<sup>2</sup>

-▼The sample is negative for Cr(VI) – The Cr(VI) concentration is below 0.10 µg/cm<sup>2</sup>. The coating is considered a non-Cr(VI) based coating. Information on storage conditions and production date of the tested sample is unavailable and thus Cr(VI) results represent status of the sample at the time of testing.

-N.A.D.= No Asbestos Detected(<Limit of detection)

-\*=According 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).

-\*<sup>1</sup>=According to the client's statement, lead mainly comes from the high melting temperature type solders. Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead) is exempted from the restriction, with reference to EU Directive 2011/65/EU annex III Exemption Applications 7(a).

-\*<sup>2</sup>=According 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).

-\*<sup>3</sup>= The sample was tested after drying for 2 hours under 105 °C.

According to the client's statement, the reasons for the multiple information in the "sample information" of this report may include (but are not limited to): supplying to different buyers, being sold to different countries or regions, former names, or mixtures of several substances.

-\*<sup>4</sup>=According to the customer's statement, the curing conditions for the product sent for testing are as follows: first, 105°C for 2 hours, then 180°C for 2 hours

## Explanation (Asbestos)

-The limit of detection of this method is defined as the detection and identification of one fibre or fibre bundle in the amount of sample examined. With appropriate matrix reduction procedures that are tailored to the nature of the sample, the limit of detection can be significantly lower than 0.1%.

-The estimated concentration(s) of the asbestos varieties detected in ranges is/are as follows: Trace (<0.1%), 0.1%~5%, 5%~50%, and 50%~100%.

-Even after disintegration it can be very difficult, or impossible, to detect the presence of asbestos in some asbestos-containing bulk materials using polarized light microscopy. These materials often contain milled asbestos with too small fibre diameter and length to be detected.

-X-ray diffraction analysis cannot discriminate the particle shape in analytical sample and detects not only asbestos of fibrous form but also non-fibrous minerals related to asbestos such as serpentine minerals and/or amphibole minerals if they coexist.

-CTI Asbestos Testing Center has established strict quality assurance and supervision procedures in accordance with international standard. And the laboratory participates in the AIMS\* every year (three times per year) to confirm our proficiency.

\*The Asbestos in Materials Scheme (AIMS) is an international inter-laboratory testing scheme, and it is managed by the Health and Safety Laboratory (HSL) which on behalf of the Health and Safety Executive (HSE) of UK.

# Test Report

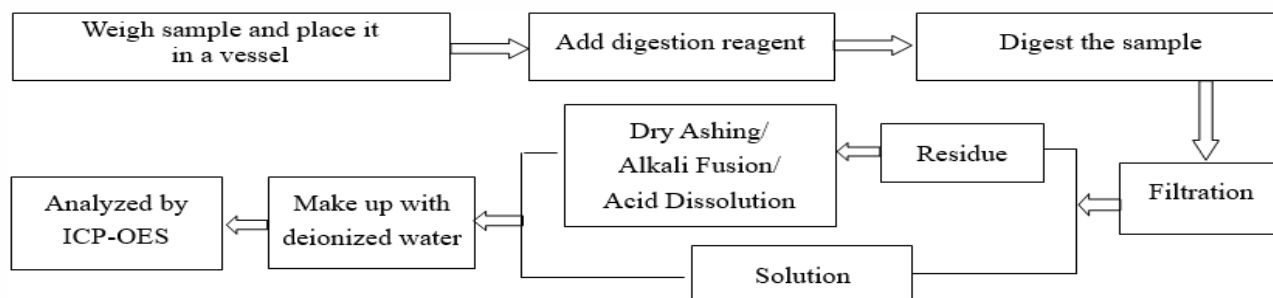
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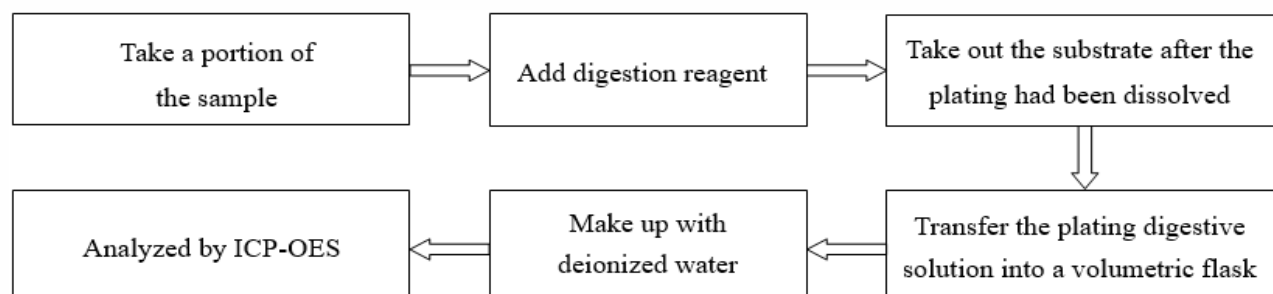
## Test Process

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

#### (1) IEC 62321-5:2013

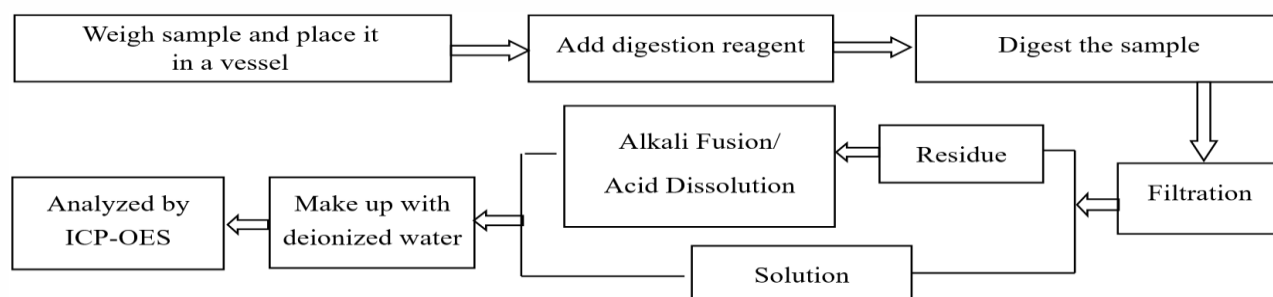


#### (2) Refer to IEC 62321-5:2013

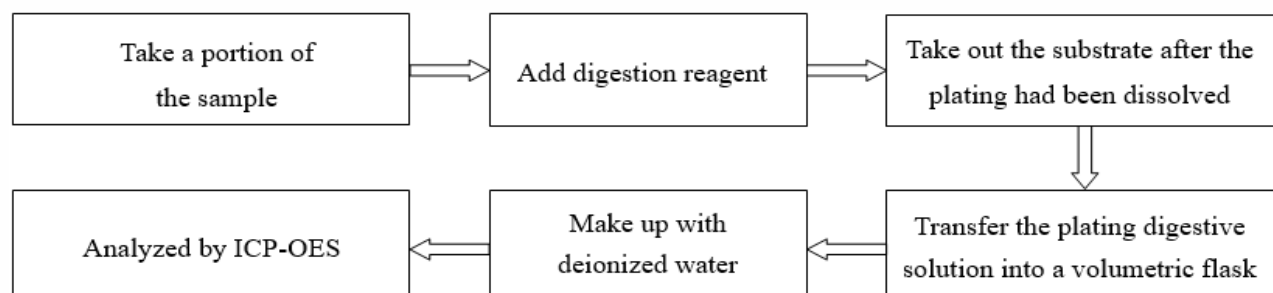


### 2. Mercury (Hg)

#### (1) IEC 62321-4:2013+AMD1:2017 CSV



#### (2) Refer to IEC 62321-4:2013+AMD1:2017 CSV



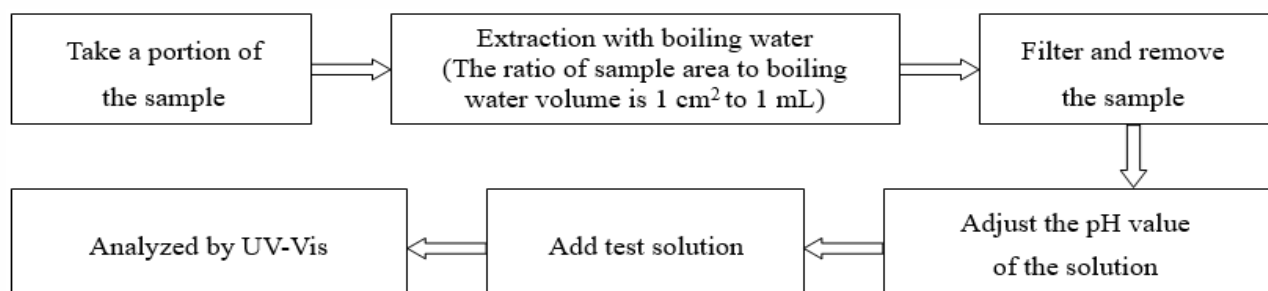
# Test Report

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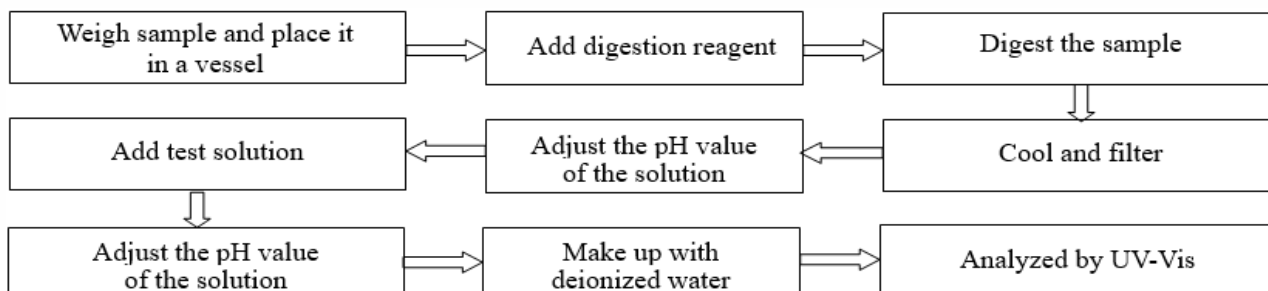
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## 3. Hexavalent Chromium (Cr(VI))

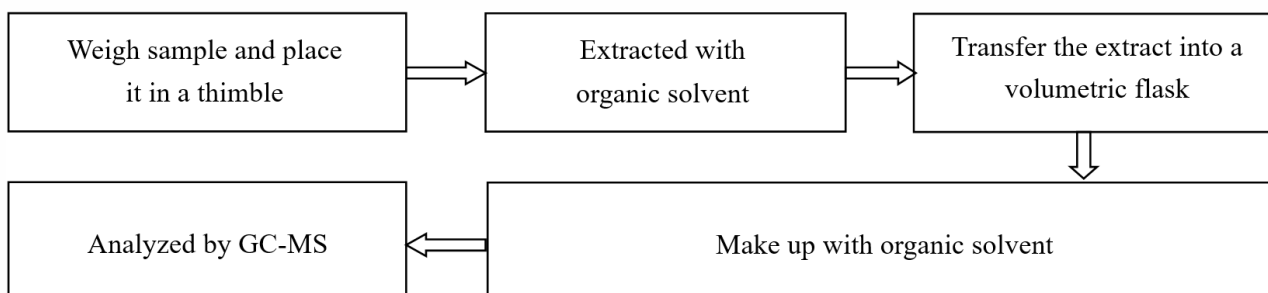
### (1) IEC 62321-7-1:2015



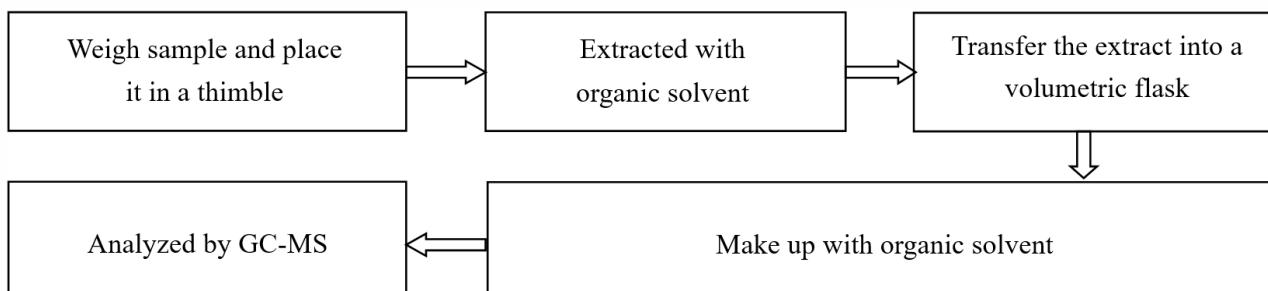
### (2) IEC 62321-7-2:2017



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



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



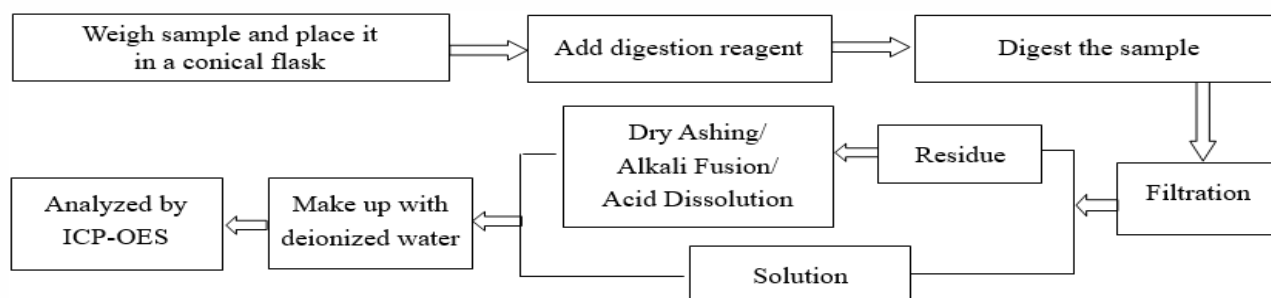
# Test Report

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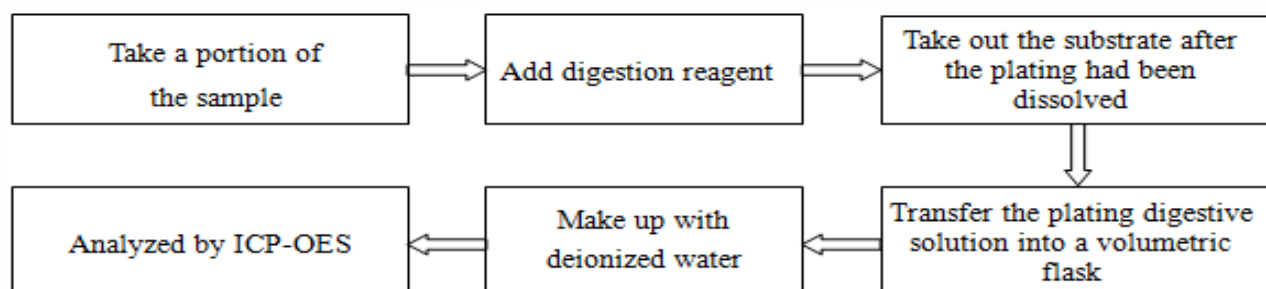
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## 6. Beryllium(Be), Antimony(Sb)

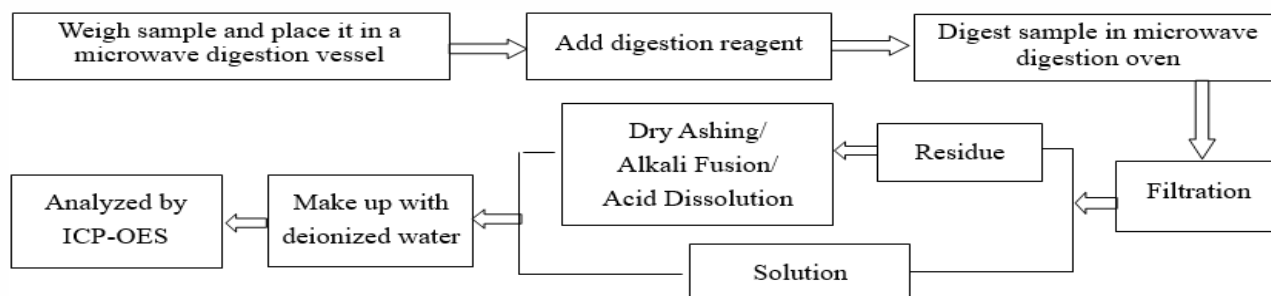
(1) Refer to US EPA 3050B:1996 & US EPA 6010D:2018



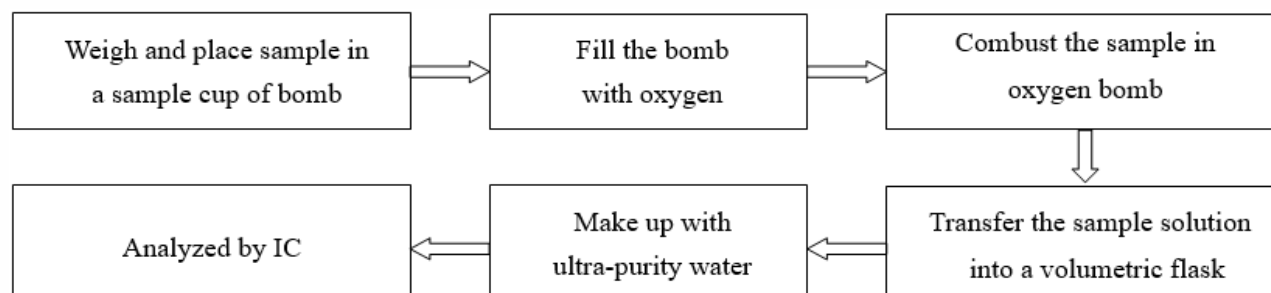
(2) Refer to US EPA 3050B:1996 & US EPA 6010D:2018 (Plating)



(3) Refer to US EPA 3052:1996 & US EPA 6010D:2018



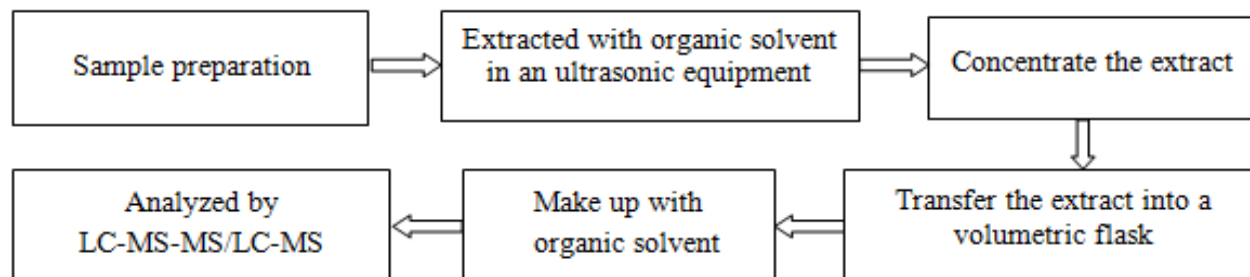
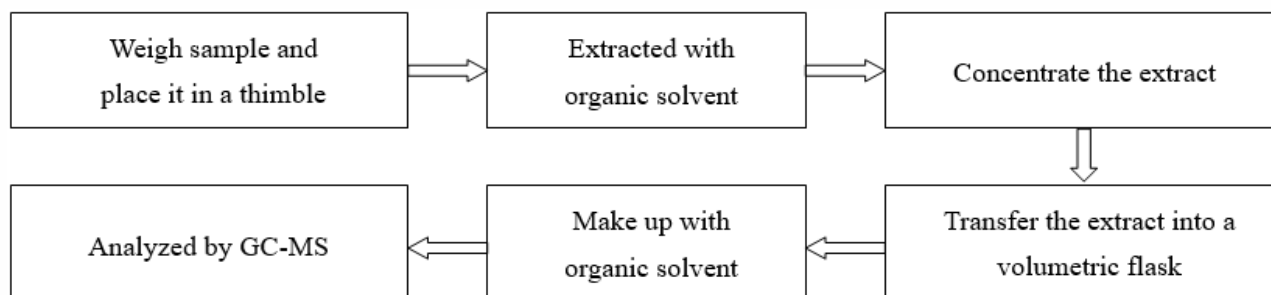
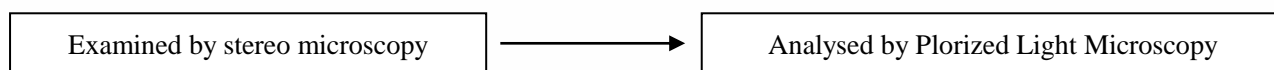
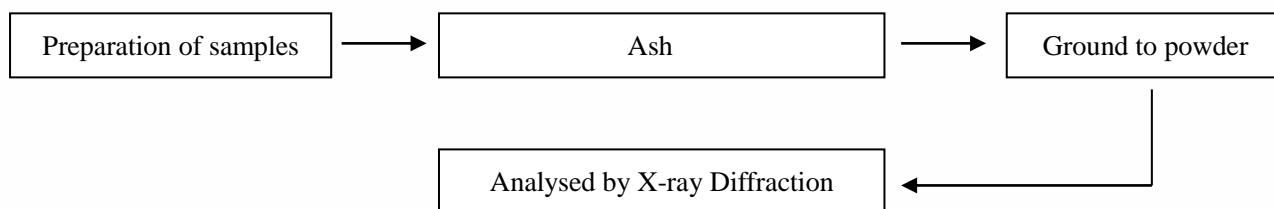
## 7. Fluorine (F), Chlorine (Cl), Bromine (Br)



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**8. Perfluorooctanoic Acid(PFOA), Perfluorooctane Sulfonates(PFOS)****9. Phthalates****10. Asbestos****PLM****XRD**

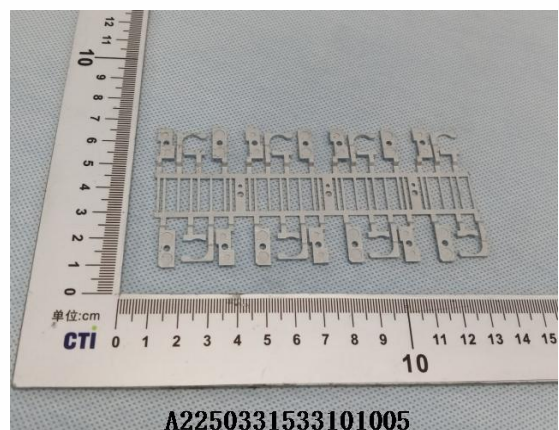
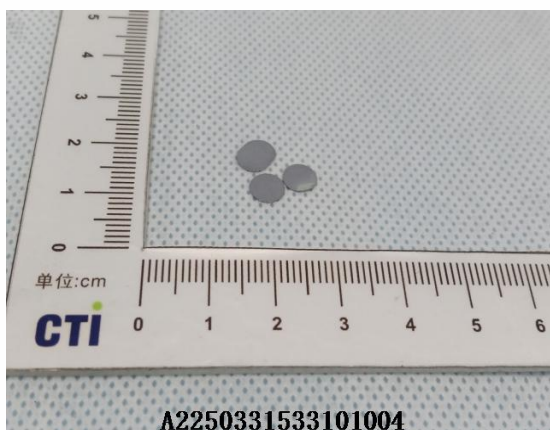
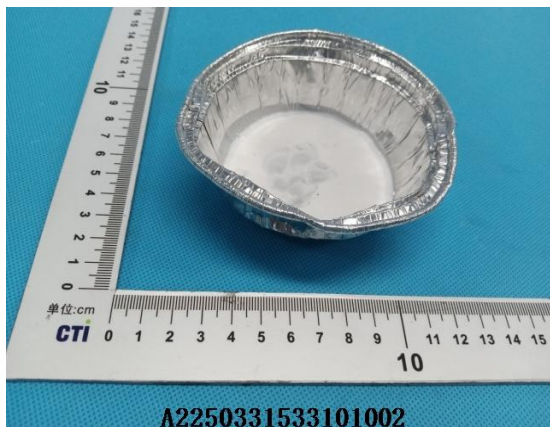
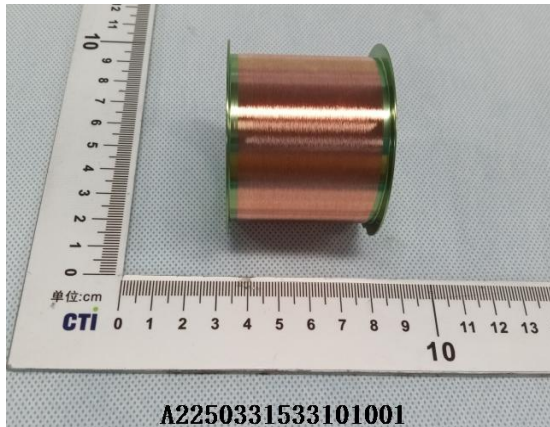


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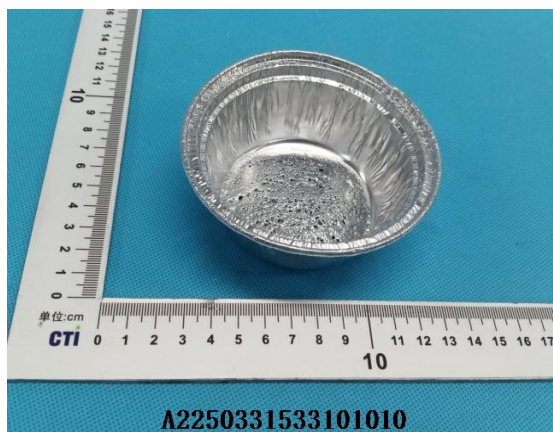
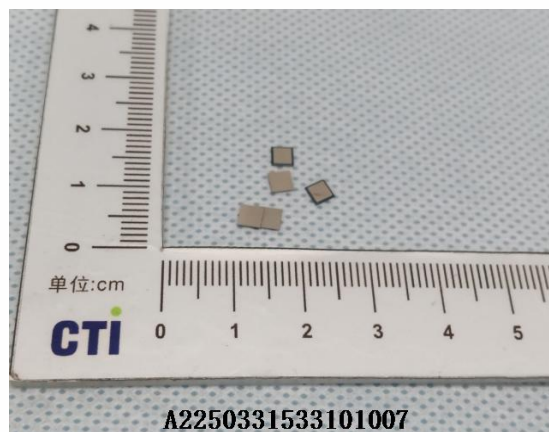
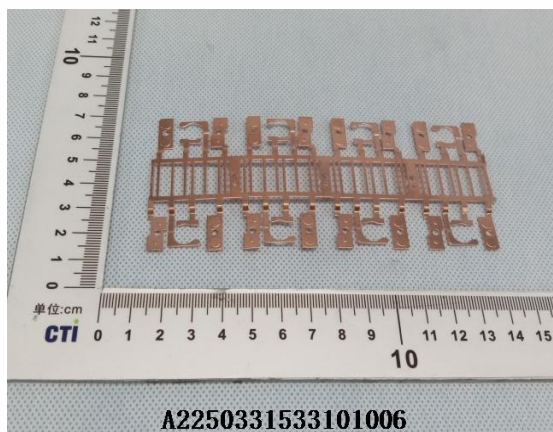
### Photo(s) of the sample(s)



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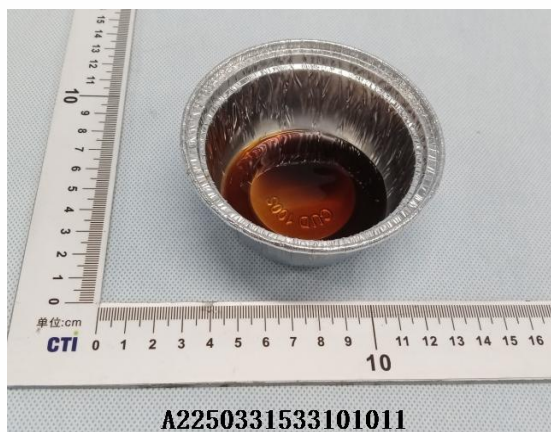




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Statement:

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. Unless otherwise stated, the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule ( $w=0$ ) stated in ILAC-G8:09/2019 / CNAS-GL015:2022;
5. Without written approval of CTI, this report can't be reproduced except in full;
6. In case of any discrepancy between the English version and Chinese version of the testing reports (if generated), the Chinese version shall prevail.

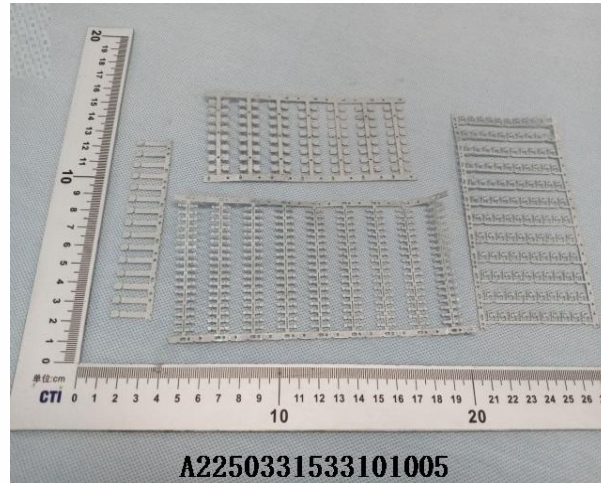
\*\*\* End of Report \*\*\*

## Appendix

### Client Reference Information

0402/0603/1.5KE/A405/AKM/BDB/BR-10/BR-15W/BR-3/BR-6/BR-8/  
BKM/CSP/D2PAK/D3K/DB/BDB/DBLS/DBS/DFN5x6EP/DFN0603/DFN0603-2L/  
DFN1006/DFN1006-2/2L/DFN1006-3/3L/DFN1610/DFN2.6\*2.6-10L/DFN2x2-3L/  
DFN2510/DFN2X2-6L/DFN3.3X3.3/DFN3x3/DFN4120-10L/DFN5x6/DFN5X6-8L/  
DFNWB0.6\*0.3/DI5/DO15/DO201AD/DO-213AB/DO218/DO218AB/  
DO277/DO34/DO35/DO41/DO41G/DPAK/ESOP-8/HR-MS/HVM/HVML/HVP/  
ITO220/ITO220A/ITO220AC/KBL/KBP/KBPG/LL34/LL41/LMDS/LFPAK5X6/MB-F/MBM/  
MDA/MDC/MDF/MDK/MDS/MDSJ/MELF/MICRO-MELF/MINI-MELF/MP-15/MP-15W/MP-25/  
MP-25W/MP-35/MP-35W/MP-40/MP-50/MP-50W/MSBM/MSBS/MSOP10/MT-35/MT-35W/  
PDFN5X6P/PPAK3x3/PPAK5X6/PQFN2X2/PDFN2X2/R1/R10000H/R12000H/R10KH/R12KH/  
R16KH/R2/R3/R30KH/R4/R5/R6/R7/R8KH/R9KH/RB-15/RBU/RBUH/RC-2/RS1/RS1L/  
RS10M/RS10MLS/RS15M/RS15MLS/RS1M/RS2/RS20M/RS20MLS/RS25M/RS25MLS/RS2L/RS2M/  
RS30M/RS35M/RS35TB/RS40M/RS485/RS4L/RS4M/RS50M/RS6/RS6L/RS60M/RS6M/  
RS-6MLS/RS8/RS8L/RS8M/RSBF/S35VB/S50VB/SBR/SC-75/SOT416/SKBPC/  
SLDBS/SlimPAQ/SlimPAQ-1/SLMDS/SLPDS/SMA (DO214AC) /SMAF/SMA-S/  
SMB (DO214AA) /SMBF/SMB-F/SMC (DO214AB) /  
SMAHE-C/SMX/SOD123/SOD123F/SOD123F(L)/SOD123F(L)-1/SOD123FH/  
SOD123FL/SOD123S/SOD123ST/SOD123FL-1/SOD323/SOD323F/SOD523/SOD523F/  
SOD723/SOD80C/SOD882/SOD923/SOF2-4/SOP-8L/SOP-14/SOP-8/SOF2-4/SOT89/  
SOT143/SOT223/SOT223-2L/3L/SOT227/SOT23/SOT23-3L/SOT23-3S/SOT23-5/SOT236/  
SOT23-6/6L/SOT26/SOT323/SOT323FL/SC70/SOT346/SOT353/SOT363/SOT363-6L/  
SOT523/SOT563/SOT723/SOT883/SOT89/SOT89-3L/SSOD923 /SSOT-6L/Sub-SMA/  
TO126/TO263/TO220/TO220-3L/TO220A/TO220A-1/TO220AB/TO220AC/  
TO220C/TO220F/TO220FAC/TO247/TO247-3L/TO247S/TO251/TO252/TO252-5L/  
TO3P/TO92/TO92L/TO92S/TOLL9/TOLL-8L/TQFN16/TSOT23-5/TDFN2x2-6L/TSOT23-6L/  
TSSOP14/TSSOP-8/TO126/TO126F/TO262/TO252-4L/TO-3P/UDFN-3L/ULBF/WBFBP-02C/WOM/  
WLCSP-10L/X3DFN2/MBF-T/UMBT/ABS/LBF

## Client Reference Photo (Non-tested sample)



### Statement:

1. The Appendix Information was/were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified.
2. The Appendix Information is/are the supplement(s) for the Report A2250331533101013.