

# Test Report

Report No. A2240018172101001

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Company Name shown on Report MITSUI HIGH-TEC (SHANGHAI) CO.,LTD

Address NO.2001 XINJIN QIAO ROAD EXPORT PROCESSING ZONE PUDONG SHANGHAI CHINA

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

Sample Name C7025+PPF  
Sample Received Date Jan. 30, 2024  
Testing Period Jan. 30, 2024 to Feb. 4, 2024

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), Arsenic(As), Beryllium(Be), Antimony(Sb), Hexabromocyclododecane (HBCDD), Fluorine (F), Chlorine (Cl), Bromine (Br), Iodine (I), Phthalates, Polychlorinated Biphenyls(PCBs), Polyvinyl Chloride (PVC), Perfluorooctanoic Acid(PFOA), Perfluorooctane Sulfonates(PFOS) in the submitted sample(s).

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

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

\*\*\*\*\*  
**Conclusion**

Tested Sample	According to standard/directive	Result
Submitted Sample	RoHS Directive 2011/65/EU with amendment (EU) 2015/863	PASS

\*\*\*\*\*  
PASS means that the results shown on the report comply with the limits set by RoHS Directive 2011/65/EU with amendment (EU) 2015/863.



Approved by

*Chen Kaimin*

Chen kaimin  
Lab Manager

Date

Feb. 4, 2024

No. R201801561

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

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

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**Test Method**

Test 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
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
Arsenic(As)	Refer to US EPA 3050B:1996 & US EPA 6010D:2018*	ICP-OES
Beryllium(Be)	Refer to US EPA 3050B:1996 & US EPA 6010D:2018*	ICP-OES
Antimony(Sb)	Refer to US EPA 3050B:1996 & US EPA 6010D:2018*	ICP-OES
Hexabromocyclododecane (HBCDD)	IEC 62321-9:2021	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
Phthalates(DMEP,DHP,DIDP,DINP,DNOP,DIHP, DHNUP)	Refer to EN 14372:2004(E)*	GC-MS
Polychlorinated Biphenyls(PCBs)	Refer to US EPA 3550C:2007 & US EPA 8270E:2018*	GC-MS
Polyvinyl Chloride (PVC)	Refer to JY/T 001-1996*	FT-IR
Perfluorooctanoic Acid(PFOA)	CEN/TS 15968:2010*	LC-MS-MS/LC-MS
Perfluorooctane Sulfonates(PFOS)	CEN/TS 15968:2010*	LC-MS-MS/LC-MS

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**Test Result(s)**

Tested Item(s)	Result	MDL	Limit
	001		
Lead (Pb)	N.D.	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))	N.D. ▼	0.10 µg/cm <sup>2</sup> (LOQ)	1000 mg/kg
Tested Item(s)	Result	MDL	Limit
	001		
<b>Polybrominated Biphenyls (PBBs)</b>			
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	
Tested Item(s)	Result	MDL	Limit
	001		
<b>Polybrominated Diphenyl Ethers (PBDEs)</b>			
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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**Test Result(s)**

Tested Item(s)	Result	MDL	Limit
	001		
<b>Phthalates (DBP, BBP, DEHP, DIBP)</b>			
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
Tested Item(s)	Result	MDL	
	001		
Arsenic (As)	N.D.	10 mg/kg	
Beryllium (Be)	N.D.	10 mg/kg	
Antimony (Sb)	N.D.	10 mg/kg	
Tested Item(s)	Result	MDL	
	001		
Hexabromocyclododecane (HBCDD)	N.D.	20 mg/kg	
Tested Item(s)	Result	MDL	
	001		
Fluorine (F)	N.D.	10 mg/kg	
Chlorine (Cl)	N.D.	10 mg/kg	
Bromine (Br)	N.D.	10 mg/kg	
Iodine (I)	N.D.	10 mg/kg	

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**Test Result(s)**

Tested Item(s)	Result	MDL
	001	
<b>Phthalates</b>		
Di-n-octyl phthalate (DNOP) CAS#:117-84-0	N.D.	50 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
Diheptyl phthalate (DHP) CAS#:3648-21-3	N.D.	50 mg/kg
Bis(2-methoxyethyl) phthalate (DMEP) CAS#:117-82-8	N.D.	50 mg/kg
*1,2-Benzenedicarboxylic acid, di-(C7-11)-branched and linear alkyl esters (DHNUP) CAS#:68515-42-4	N.D.	100 mg/kg
*1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP) CAS#:71888-89-6	N.D.	100 mg/kg
Tested Item(s)	Result	MDL
	001	
<b>Polychlorinated Biphenyls(PCBs)</b>		
Monochlorobiphenyl	N.D.	5 mg/kg
Dichlorobiphenyl	N.D.	5 mg/kg
Trichlorobiphenyl	N.D.	5 mg/kg
Tetrachlorobiphenyl	N.D.	5 mg/kg
Pentachlorobiphenyl	N.D.	5 mg/kg
Hexachlorobiphenyl	N.D.	5 mg/kg
Heptachlorobiphenyl	N.D.	5 mg/kg
Octachlorobiphenyl	N.D.	5 mg/kg
Nonachlorobiphenyl	N.D.	5 mg/kg
Decachlorobiphenyl	N.D.	5 mg/kg
Tested Item(s)	Result	MDL
	001	
Polyvinyl Chloride (PVC)	Negative	/
Tested Item(s)	Result	MDL
	001	
Perfluorooctanoic Acid (PFOA)	N.D.	0.010 mg/kg

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**Test Result(s)**

Tested Item(s)	Result	MDL
	001	
Perfluorooctane Sulfonates (PFOS)	N.D.	0.010 mg/kg

**Sample/Part Description**

No.	CTI Sample ID	Description
1	001	Silvery metal

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

**-\*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.

-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<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.

-Negative = Not contained Polyvinyl Chloride(PVC)

**Note:** “\*” indicates the method(s) is (are) not in CNAS accreditation scope.

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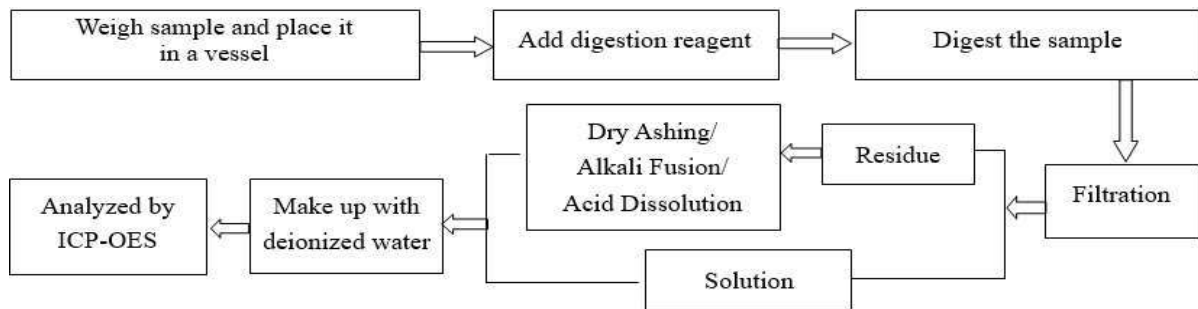
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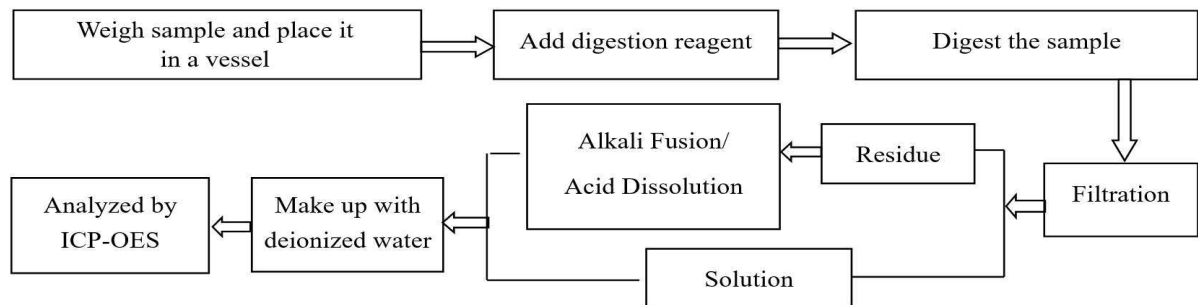
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## Test Process

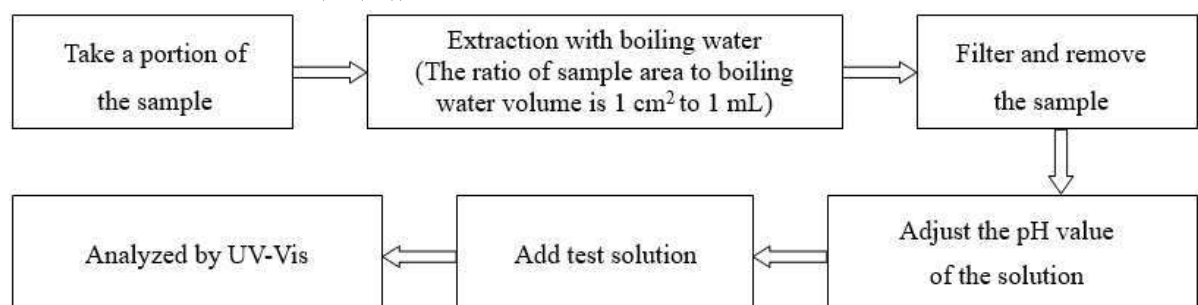
### 1. Lead (Pb), Cadmium (Cd)



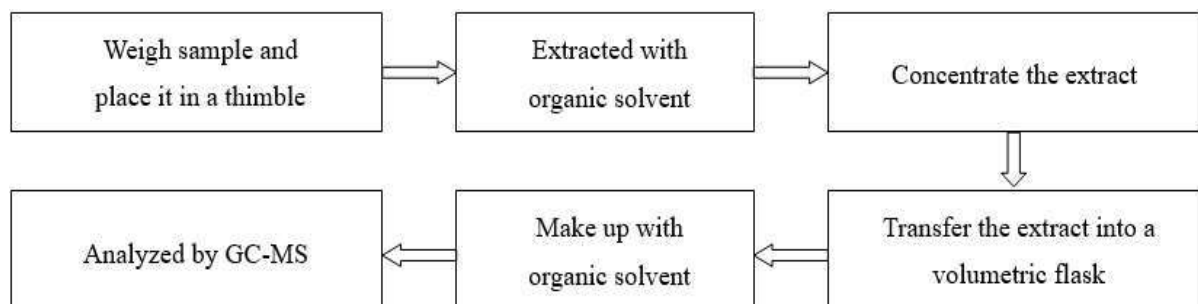
### 2. Mercury (Hg)



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



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

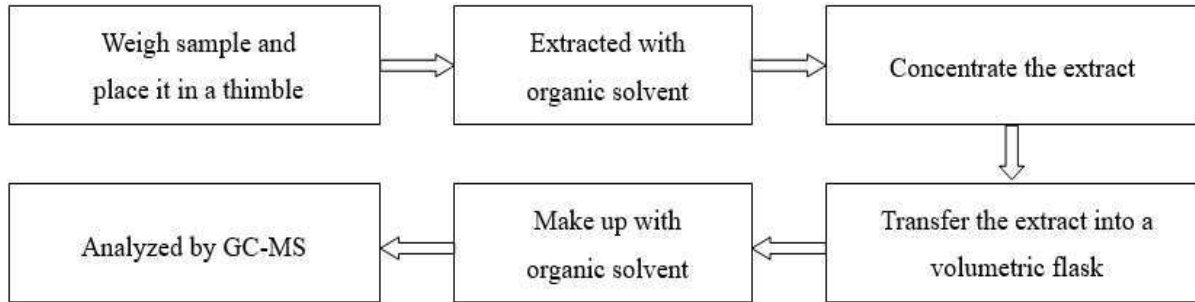


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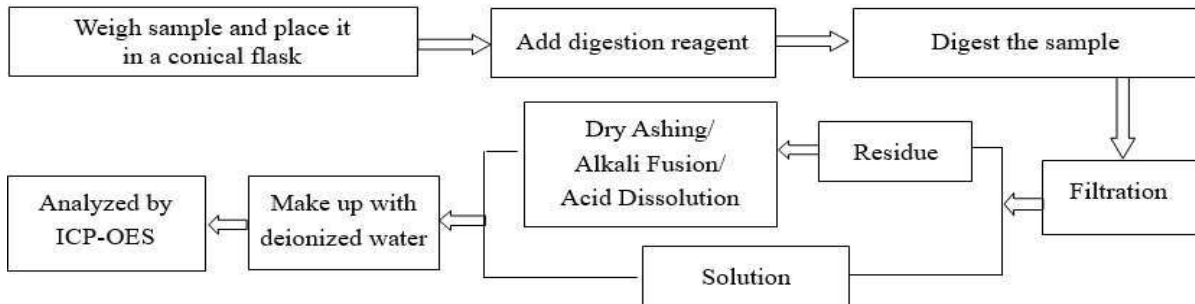
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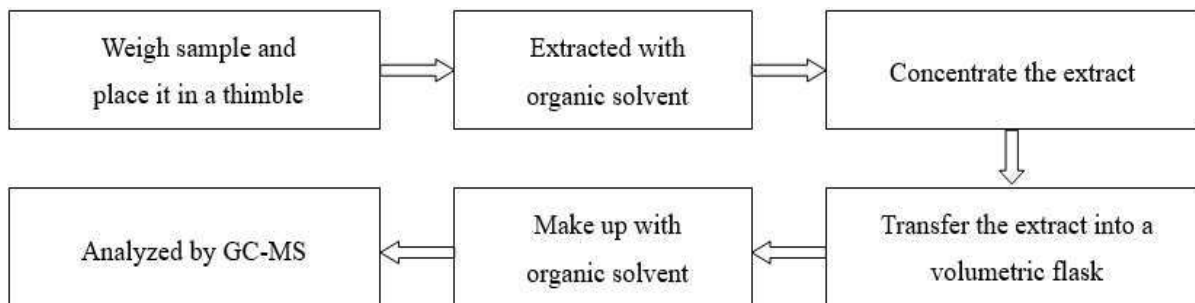
**5. Phthalates**



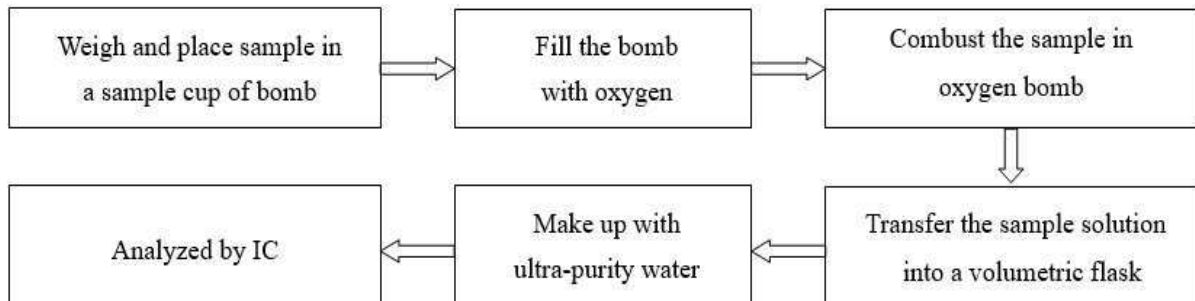
**6. Arsenic(As), Beryllium(Be), Antimony(Sb)**



**7. Hexabromocyclododecane (HBCDD)**



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



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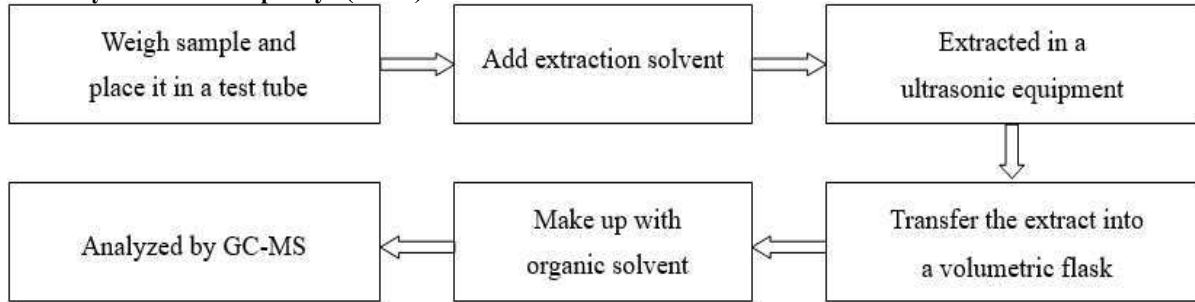


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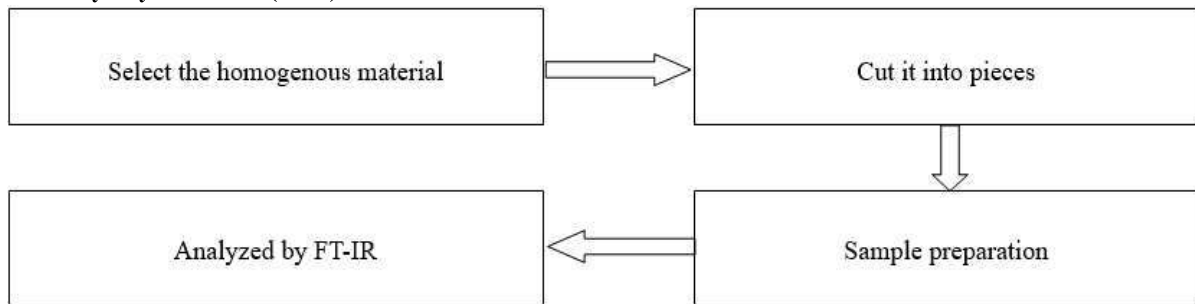
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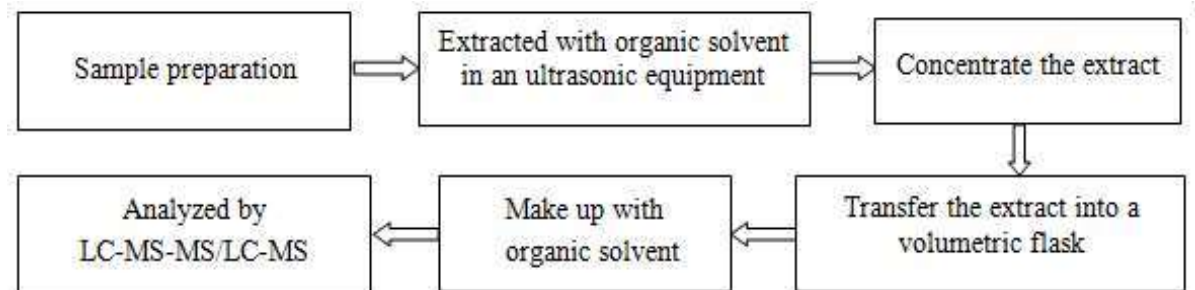
## 9. Polychlorinated Biphenyls(PCBs)



## 10. Polyvinyl Chloride (PVC)



## 11. Perfluorooctanoic Acid(PFOA), Perfluorooctane Sulfonates(PFOS)



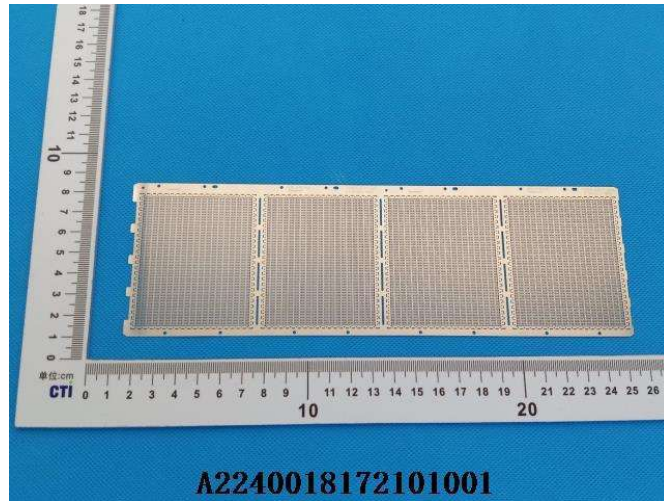
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## Photo(s) of the sample(s)



### 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 \*\*\*