



Test Report

Report No. A2210330067101003

Page 1 of 9

Company Name UNIMICRON (SUZHOU) TECHNOLOGY CORP.

shown on Report

Address NO. 160 FENGLI ST. SUZHOU INDUSTRIAL PARK, JIANGSU

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

Sample Name(s)	Au Plating layer
Part No.	Au Plating layer
Material	Au Plating layer
Supplier	UMTC
Sample Received Date	Aug. 16, 2021
Testing Period	Aug. 16, 2021 to Aug. 21, 2021

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), Phthalates (DBP, BBP, DEHP, DIBP), Arsenic(As), Beryllium(Be), Antimony(Sb), Hexabromocyclododecane (HBCDD), Perfluorooctane Sulfonates(PFOS), Perfluorooctanoic Acid(PFOA), Fluorine (F), Chlorine (Cl), Bromine (Br), Iodine (I) in the submitted sample(s).

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

Tested by Wang Dong

Reviewed by Hu Wei

Approved by Chen Kaimin

Date Aug. 21, 2021

Chen kaimin
Lab Manager

No. R460051122

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



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

Test Report

Report No. A2210330067101003

Page 2 of 9

Test Method

Tested Item(s)	Test Method	Measured Equipment(s)
Lead (Pb)	Refer to IEC 62321-5:2013	ICP-OES
Cadmium (Cd)	Refer to IEC 62321-5:2013	ICP-OES
Mercury (Hg)	Refer to 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)	Refer to US EPA 3550C:2007 & US EPA 8270E:2018	GC-MS
Perfluorooctane Sulfonates(PFOS)	Refer to CEN/TS 15968:2010	LC-MS-MS/LC-MS
Perfluorooctanoic Acid(PFOA)	Refer to CEN/TS 15968:2010	LC-MS-MS/LC-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

Test Result(s)

Tested Item(s)	Result	MDL
	001	
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))	N.D. ▽	0.10 µg/cm ² (LOQ)

Test Report

Report No. A2210330067101003

Page 3 of 9

Tested Item(s)	Result	MDL
	001	
Polybrominated Biphenyls (PBBs)		
Monobromobiphenyl	N.D.	5 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
	001	
Polybrominated Diphenyl Ethers (PBDEs)		
Monobromodiphenyl ether	N.D.	5 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

Test Report

Report No. A2210330067101003

Page 4 of 9

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

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

Tested Item(s)	Result	MDL
	002	
Antimony (Sb)	N.D.	2 mg/kg

Tested Item(s)	Result	MDL
	001	
Hexabromocyclododecane (HBCDD)	N.D.	5 mg/kg

Test Report

Report No. A2210330067101003

Page 5 of 9

Tested Item(s)	Result	MDL
	001	
Perfluorooctane Sulfonates (PFOS)	N.D.	0.5 µg/m ²

Tested Item(s)	Result	MDL
	001	
Perfluorooctanoic Acid (PFOA)	N.D.	0.5 µg/m ²

Tested Item(s)	Result	MDL
	001	
Fluorine (F)	N.D.*	50 mg/kg
Chlorine (Cl)	N.D.*	50 mg/kg
Bromine (Br)	N.D.*	50 mg/kg
Iodine (I)	N.D.*	50 mg/kg

Sample/Part Description

- 001 Golden plating
- 002 Metal with golden plating

Remark: The sample(s) had been dissolved totally tested for Lead, Cadmium, Mercury, Arsenic, 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/cm²

-▼The sample is negative for Cr(VI) – The Cr(VI) concentration is below 0.10 µg/cm². The coating is considered a non-Cr(VI) based coating.

-*=The value is converted from the test result with the density and thickness provided by client (Density =19.3g/cm³, thickness=2.63µm).

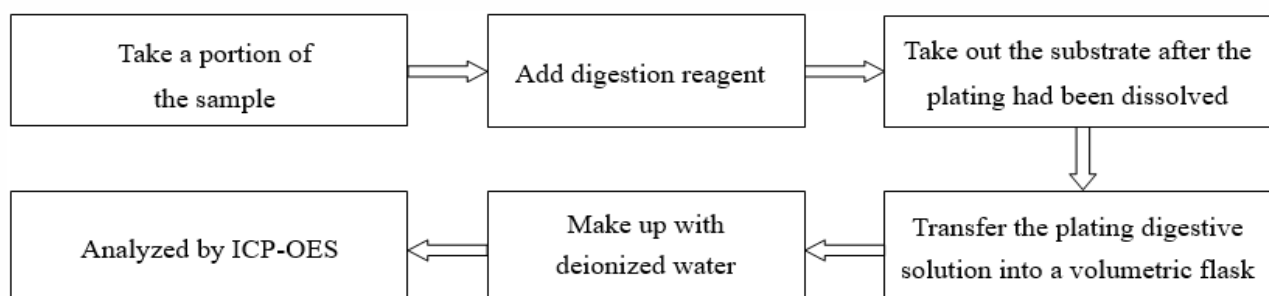
Test Report

Report No. A2210330067101003

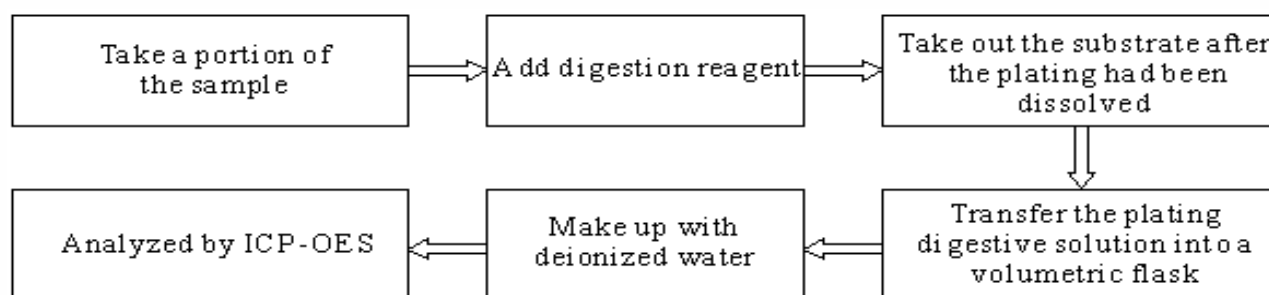
Page 6 of 9

Test Process

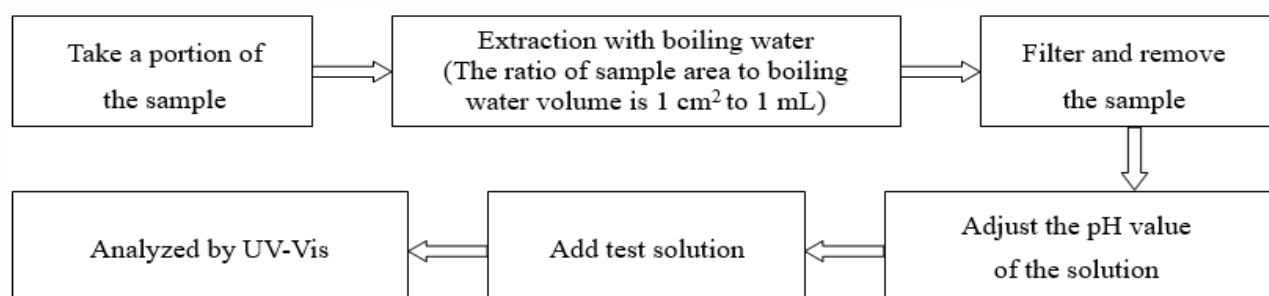
1. Lead (Pb), Cadmium (Cd)



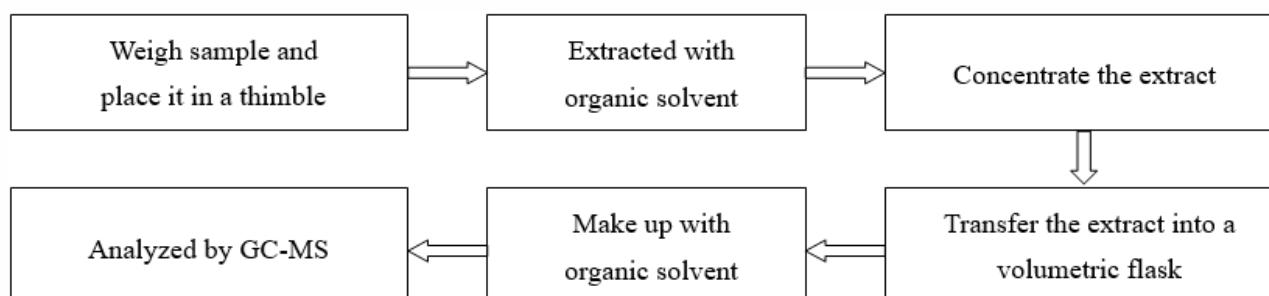
2. Mercury (Hg)



3. Hexavalent Chromium (Cr(VI))



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

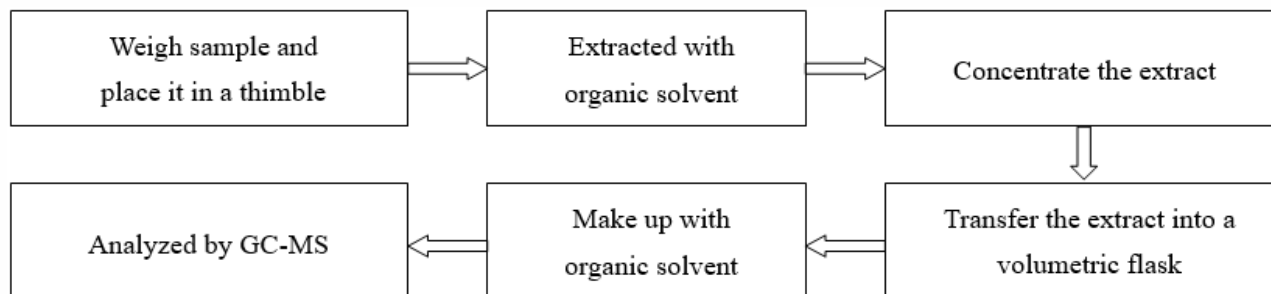


Test Report

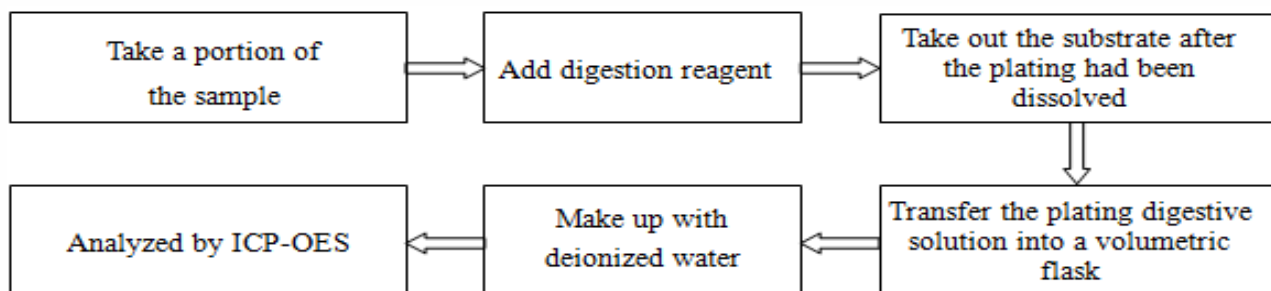
Report No. A2210330067101003

Page 7 of 9

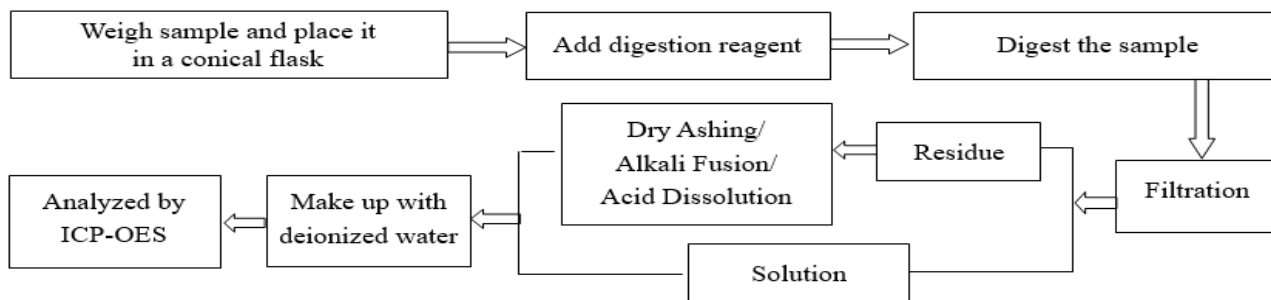
5. Phthalates (DBP, BBP, DEHP, DIBP)



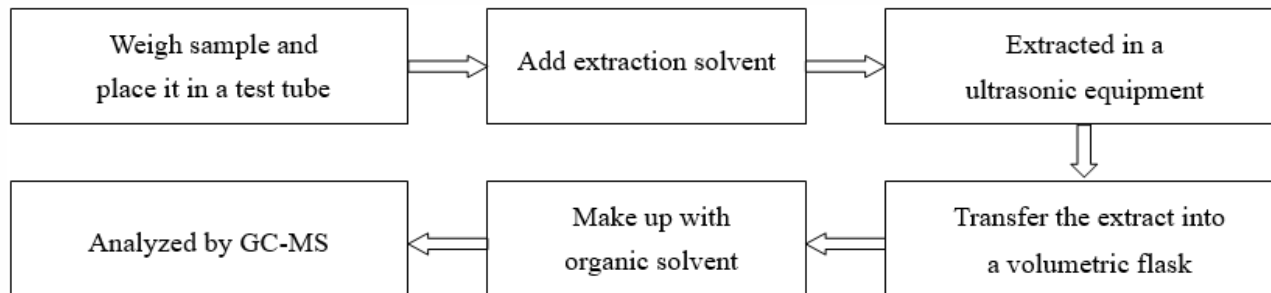
6. Arsenic(As), Beryllium(Be)



7. Antimony(Sb)



8. Hexabromocyclododecane (HBCDD)

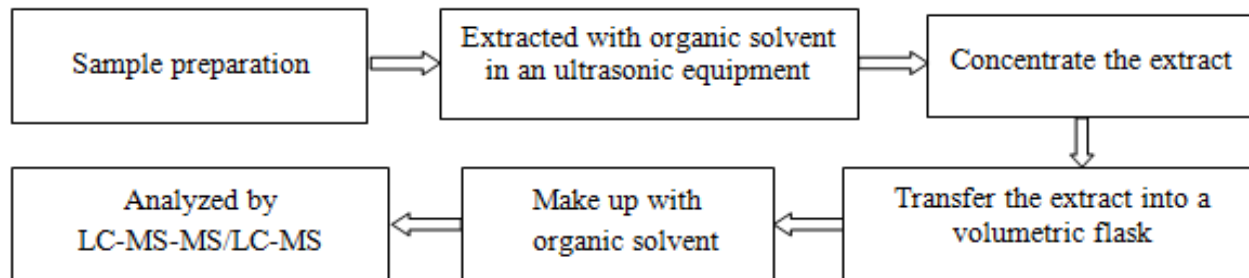


Test Report

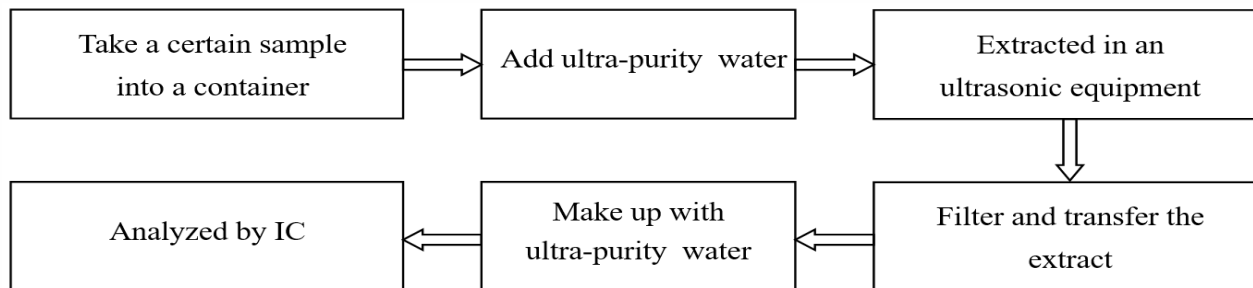
Report No. A2210330067101003

Page 8 of 9

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



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

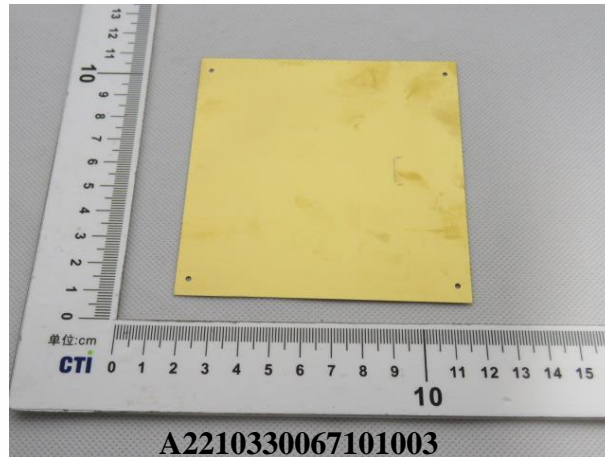


Test Report

Report No. A2210330067101003

Page 9 of 9

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. 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 ***