

Test Report

Report No. ECL01J072420007

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Applicant TAIYO INK(SUZHOU)CO.,LTD.

Address NO.26 TAISHAN ROAD,SUZHOU NEW DISTRICT, SUZHOU CITY ,JIANGSU PROVINCE,P.R.CHINA

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

Sample Name PSR-2000 CD02G/CA-25 CD01 (UL: PSR-2000CJ/CA-25CJ)

Part No. Photoimageable Solder Resist

Item/Lot No. 17101118/17101718

Color Green

Material Resin/fillers/Pigment/else

Sample Received Date Nov. 17, 2017

Testing Period Nov. 17, 2017 to Nov. 21, 2017

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), Hexabromocyclododecane (HBCDD) Phthalates in the submitted sample(s).

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

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

Tested by Zhou Hongxia

Approved by Su Hongwei

Su Hongwei
Senior Laboratory Manager

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

Reviewed by Dong Yong min

Date Nov. 21, 2017

No. R198691555

No.1996,Xinjinqiao Road, Pudong New District,Shanghai,China

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Test Method

Test Item(s)	Test Method	Measured Equipment(s)
Lead (Pb)	IEC 62321-5:2013 Ed.1.0	ICP-OES
Cadmium (Cd)	IEC 62321-5:2013 Ed.1.0	ICP-OES
Mercury (Hg)	IEC 62321-4:2013 Ed.1.0	ICP-OES
Hexavalent Chromium(Cr(VI))	IEC 62321-7-2:2017 and/or determination of Total Chromium by IEC 62321-5:2013 Ed.1.0	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
Hexabromocyclododecane (HBCDD)	Refer to US EPA 3550C:2007 & US EPA 8270D:2014	GC-MS
Phthalates (DMP, DEP, DPRP, DIBP, DBP, DPP, DHP, BBP, DCHP, DEHP, DIOP, DNOP, DINP, DIDP, DNP ,DINA)	Refer to EN 14372:2004(E)	GC-MS

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Test Result(s)

Tested Item(s)	Result	MDL
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.	8 mg/kg

Tested Item(s)	Result	MDL
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
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

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Tested Item(s)	Result	MDL
Phthalates		
Dibutyl phthalate(DBP) CAS#:84-74-2	N.D.	50 mg/kg
Butylbenzyl 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
Hexabromocyclododecane (HBCDD)	N.D.	5 mg/kg

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Tested Item(s)	Result	MDL
Phthalates		
Dimethyl phthalate(DMP) CAS#:131-11-3	N.D.	50 mg/kg
Diethyl phthalate(DEP) CAS#:84-66-2	N.D.	50 mg/kg
Dipropyl phthalate(DPRP) CAS#:131-16-8	N.D.	50 mg/kg
Diisobutyl phthalate(DIBP) CAS#:84-69-5	N.D.	50 mg/kg
Dibutyl phthalate(DBP) CAS#:84-74-2	N.D.	50 mg/kg
Di-n-Pentyl Phthalate (DPP) CAS#:131-18-0	N.D.	50 mg/kg
Diheptyl phthalate(DHP) CAS#:3648-21-3	N.D.	50 mg/kg
Butylbenzyl phthalate(BBP) CAS#:85-68-7	N.D.	50 mg/kg
Dicyclohexyl phthalate(DCHP) CAS#:84-61-7	N.D.	50 mg/kg
Di-2-ethylhexyl phthalate(DEHP) CAS#:117-81-7	N.D.	50 mg/kg
Diisooctyl phthalate(DIOP) CAS#:27554-26-3	N.D.	50 mg/kg
Di-n-octyl phthalate(DNOP) CAS#:117-84-0	N.D.	50 mg/kg
Diisononyl phthalate(DINP) CAS#:28553-12-0,68515-48-0	N.D.	50 mg/kg
Diisodecyl phthalate(DIDP) CAS#:26761-40-0,68515-49-1	N.D.	50 mg/kg
Dinonyl phthalate(DNP) CAS#:84-76-4	N.D.	50 mg/kg
Diisononyl adipate(DINA) CAS#:33703-08-1	N.D.	50 mg/kg

Tested Sample/Part Description Green ink

Remark: The sample was dissolved/decomposed totally by acid pre-conditioning method for Lead, Cadmium, Mercury according to below flow chart.

-MDL = Method Detection Limit

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

-mg/kg = ppm = parts per million

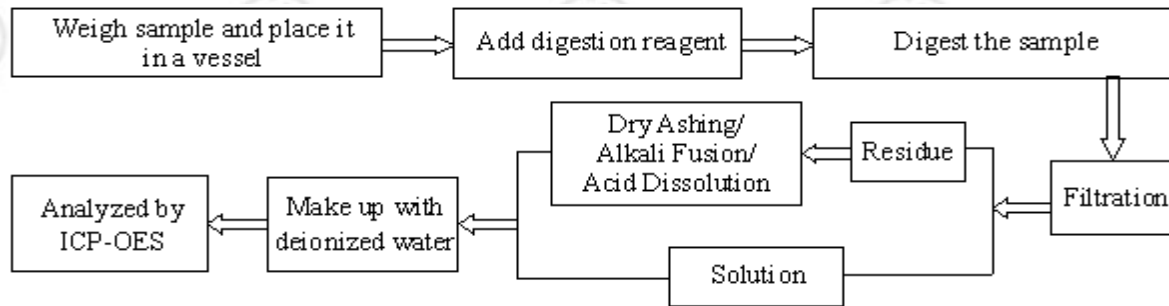
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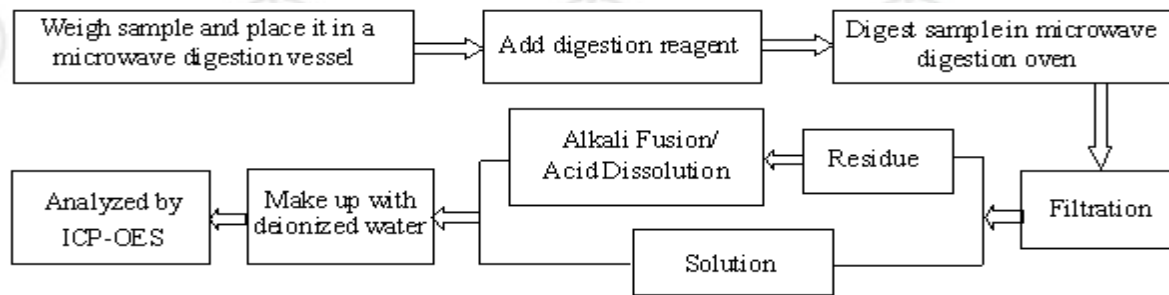
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Test Process

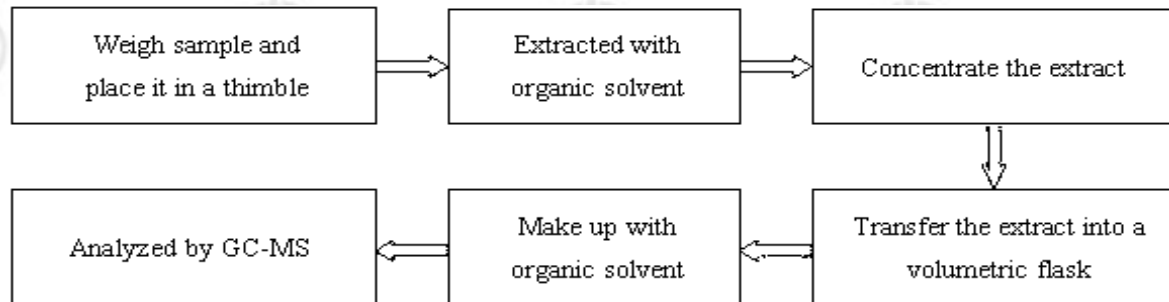
1. Lead (Pb), Cadmium (Cd), Chromium (Cr)



2. Mercury (Hg)



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

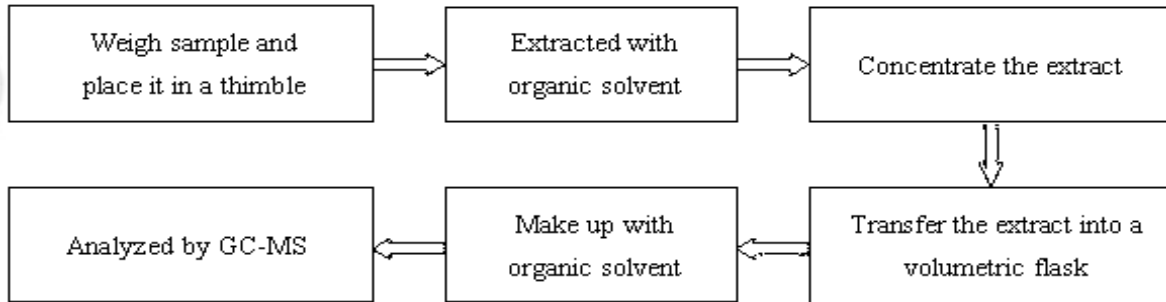


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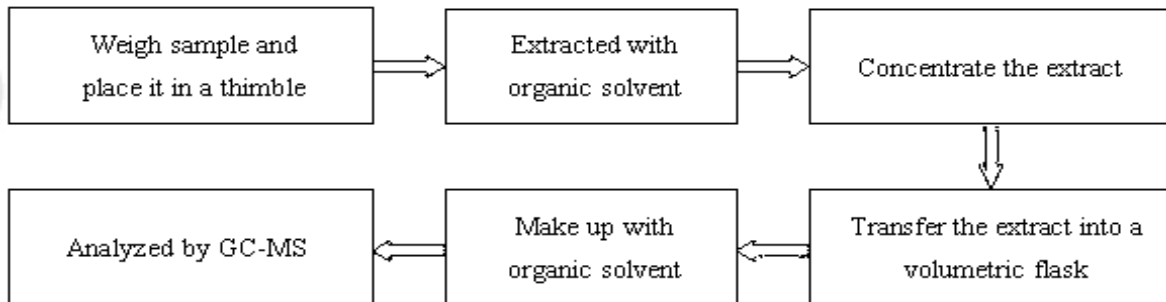
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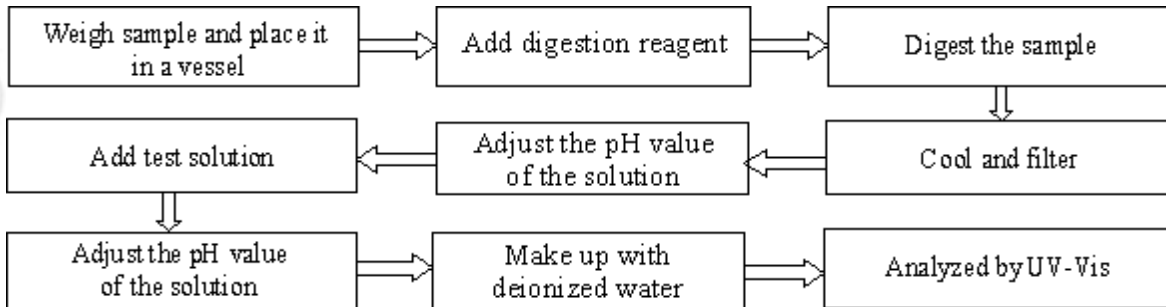
4. Hexabromocyclododecane (HBCDD)



5. Phthalates



6. Hexavalent Chromium(Cr(VI))

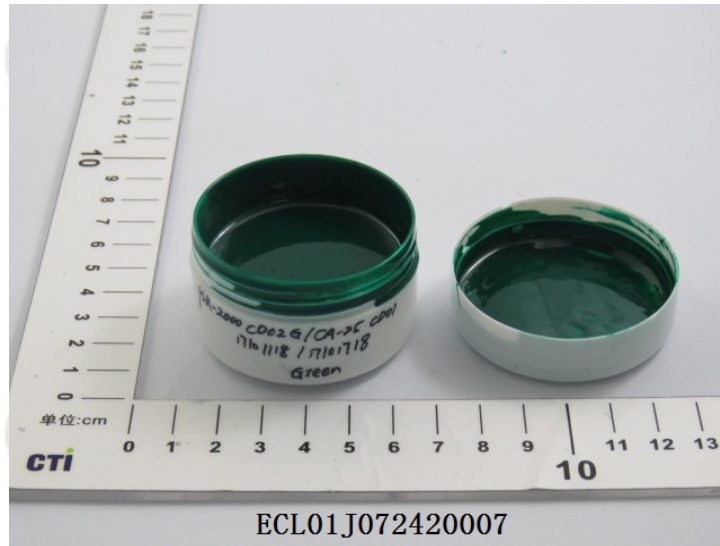


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Photo(s) of the sample(s)



*** End of report ***

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