

Test Report

Report No. NCL02H003750

Page 1 of 9

Applicant LIAONING DIYA ELECTRONIC CO.,LTD

Address NORTH 3.ROAD 12.THE EAST OF ROAD C ECONOMIC DEVELOPMENT
ZONE FUXIN LIAONING CHINA

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

Sample Name	Polyester Film Capacitor- Box Type 、 Polypropylene Film Capacitor- Box Type		
Material	1.Film	2.Sisc(Pb Free)、AL、 BaSnSbCu	
	3.Leads	4.Epoxy Resin	5.Epoxy Resin
	6.Epoxy Resin	7.Epoxy Resin	8.Epoxy Resin
	9.Plastic Box	10.Plastic Box	11.Plastic Box
	12.Plastic Box	13.Plastic Box	

Sample Received Date Jun. 15, 2015

Testing Period Jun. 15, 2015 to Jun. 18, 2015

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) in the submitted sample(s).

Test Method

Tested 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 62321:2008 Ed.1 Annex B	UV-Vis
	IEC 62321:2008 Ed.1 Annex C	
Polybrominated Biphenyls (PBBs)	IEC 62321:2008 Ed.1 Annex A	GC-MS
Polybrominated Diphenyl Ethers (PBDEs)	IEC 62321:2008 Ed.1 Annex A	GC-MS

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

Tested by

Cain
Allen Wang



Allen Wang

Technical Manager

Centre Testing International (Tianjin) Co., Ltd.

Reviewed by

Monium

Date

Jun. 18, 2015

No. R216458021

No.99, Xianfeng East Road, Dongli District, Tianjin, China

Test Report

Report No. NCL02H003750

Page 2 of 9

Test Result(s)

Tested Item(s)	Result					MDL
	1	2	3	4	5	
Lead (Pb)	N.D.	10 mg/kg	N.D.	N.D.	N.D.	2 mg/kg
Cadmium (Cd)	N.D.	N.D.	N.D.	N.D.	N.D.	2 mg/kg
Mercury (Hg)	N.D.	N.D.	N.D.	N.D.	N.D.	2 mg/kg
Hexavalent Chromium (Cr(VI))	N.D.	—	—	N.D.	N.D.	2 mg/kg
	—	Negative	Negative	—	—	/

Tested Item(s)	Result					MDL
	1	2	3	4	5	
Polybrominated Biphenyls(PBBs)						
Monobromobiphenyl	N.D.	—	—	N.D.	N.D.	5 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
Polybrominated Diphenyl Ethers(PBDEs)						
Monobromodiphenyl ether	N.D.	—	—	N.D.	N.D.	5 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

Test Report

Report No. NCL02H003750

Page 3 of 9

Test Result(s)

Tested Item(s)	Result				MDL
	6	7	8	9	
Lead (Pb)	N.D.	N.D.	N.D.	N.D.	2 mg/kg
Cadmium (Cd)	N.D.	N.D.	N.D.	N.D.	2 mg/kg
Mercury (Hg)	N.D.	N.D.	N.D.	N.D.	2 mg/kg
Hexavalent Chromium (Cr(VI))	N.D.	N.D.	N.D.	N.D.	2 mg/kg
	—	—	—	—	/

Tested Item(s)	Result				MDL
	6	7	8	9	
Polybrominated Biphenyls(PBBs)					
Monobromobiphenyl	N.D.	N.D.	N.D.	N.D.	5 mg/kg
Dibromobiphenyl	N.D.	N.D.	N.D.	N.D.	5 mg/kg
Tribromobiphenyl	N.D.	N.D.	N.D.	N.D.	5 mg/kg
Tetrabromobiphenyl	N.D.	N.D.	N.D.	N.D.	5 mg/kg
Pentabromobiphenyl	N.D.	N.D.	N.D.	N.D.	5 mg/kg
Hexabromobiphenyl	N.D.	N.D.	N.D.	N.D.	5 mg/kg
Heptabromobiphenyl	N.D.	N.D.	N.D.	N.D.	5 mg/kg
Octabromobiphenyl	N.D.	N.D.	N.D.	N.D.	5 mg/kg
Nonabromobiphenyl	N.D.	N.D.	N.D.	N.D.	5 mg/kg
Decabromobiphenyl	N.D.	N.D.	N.D.	N.D.	5 mg/kg
Polybrominated Diphenyl Ethers(PBDEs)					
Monobromodiphenyl ether	N.D.	N.D.	N.D.	N.D.	5 mg/kg
Dibromodiphenyl ether	N.D.	N.D.	N.D.	N.D.	5 mg/kg
Tribromodiphenyl ether	N.D.	N.D.	N.D.	N.D.	5 mg/kg
Tetrabromodiphenyl ether	N.D.	N.D.	N.D.	N.D.	5 mg/kg
Pentabromodiphenyl ether	N.D.	N.D.	N.D.	N.D.	5 mg/kg
Hexabromodiphenyl ether	N.D.	N.D.	N.D.	N.D.	5 mg/kg
Heptabromodiphenyl ether	N.D.	N.D.	N.D.	N.D.	5 mg/kg
Octabromodiphenyl ether	N.D.	N.D.	N.D.	N.D.	5 mg/kg
Nonabromodiphenyl ether	N.D.	N.D.	N.D.	N.D.	5 mg/kg
Decabromodiphenyl ether	N.D.	N.D.	N.D.	N.D.	5 mg/kg

Test Report

Report No. NCL02H003750

Page 4 of 9

Test Result(s)

Tested Item(s)	Result				MDL
	10	11	12	13	
Lead (Pb)	N.D.	N.D.	15 mg/kg	4 mg/kg	2 mg/kg
Cadmium (Cd)	N.D.	N.D.	N.D.	N.D.	2 mg/kg
Mercury (Hg)	N.D.	N.D.	N.D.	N.D.	2 mg/kg
Hexavalent Chromium (Cr(VI))	N.D.	N.D.	N.D.	N.D.	2 mg/kg
	—	—	—	—	/

Tested Item(s)	Result				MDL
	10	11	12	13	
Polybrominated Biphenyls(PBBs)					
Monobromobiphenyl	N.D.	N.D.	N.D.	N.D.	5 mg/kg
Dibromobiphenyl	N.D.	N.D.	N.D.	N.D.	5 mg/kg
Tribromobiphenyl	N.D.	N.D.	N.D.	N.D.	5 mg/kg
Tetrabromobiphenyl	N.D.	N.D.	N.D.	N.D.	5 mg/kg
Pentabromobiphenyl	N.D.	N.D.	N.D.	N.D.	5 mg/kg
Hexabromobiphenyl	N.D.	N.D.	N.D.	N.D.	5 mg/kg
Heptabromobiphenyl	N.D.	N.D.	N.D.	N.D.	5 mg/kg
Octabromobiphenyl	N.D.	N.D.	N.D.	N.D.	5 mg/kg
Nonabromobiphenyl	N.D.	N.D.	N.D.	N.D.	5 mg/kg
Decabromobiphenyl	N.D.	N.D.	N.D.	N.D.	5 mg/kg
Polybrominated Diphenyl Ethers(PBDEs)					
Monobromodiphenyl ether	N.D.	N.D.	N.D.	N.D.	5 mg/kg
Dibromodiphenyl ether	N.D.	N.D.	N.D.	N.D.	5 mg/kg
Tribromodiphenyl ether	N.D.	N.D.	N.D.	N.D.	5 mg/kg
Tetrabromodiphenyl ether	N.D.	N.D.	N.D.	N.D.	5 mg/kg
Pentabromodiphenyl ether	N.D.	N.D.	N.D.	N.D.	5 mg/kg
Hexabromodiphenyl ether	N.D.	N.D.	N.D.	N.D.	5 mg/kg
Heptabromodiphenyl ether	N.D.	N.D.	N.D.	N.D.	5 mg/kg
Octabromodiphenyl ether	N.D.	N.D.	N.D.	N.D.	5 mg/kg
Nonabromodiphenyl ether	N.D.	N.D.	N.D.	N.D.	5 mg/kg
Decabromodiphenyl ether	N.D.	N.D.	N.D.	N.D.	5 mg/kg

Test Report

Report No. NCL02H003750

Page 5 of 9

Tested Sample/Part Description

- 1.Film(capacitor core)
- 2.Silver color core(capacitor core)
- 3.Metal with silvery plating
- 4.Yellow paste
- 5.Yellow paste
- 6.Yellow solid
- 7.Gray solid
- 8.Gray paste
- 9.Gray solid
- 10.Yellow plastic
- 11.Yellow plastic
- 12.Blue plastic
- 13.Gray plastic

Remark: The sample had been dissolved totally tested for Lead, Cadmium, Mercury.

-MDL = Method Detection Limit

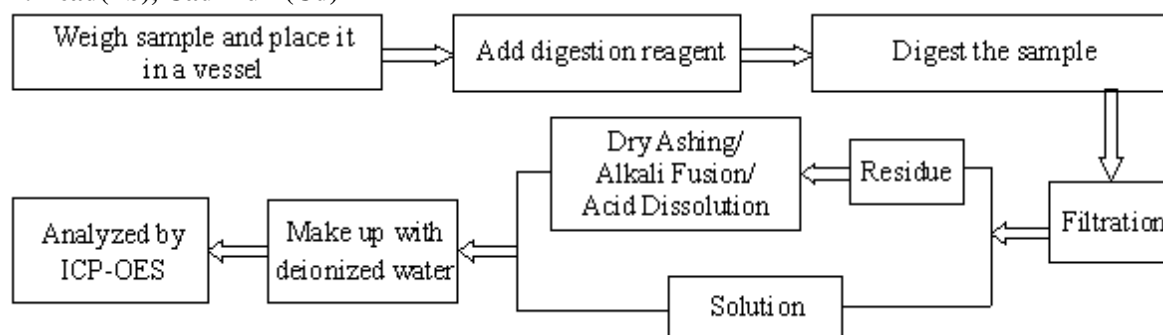
-N.D. = Not Detected (<MDL)

-mg/kg = ppm = parts per million

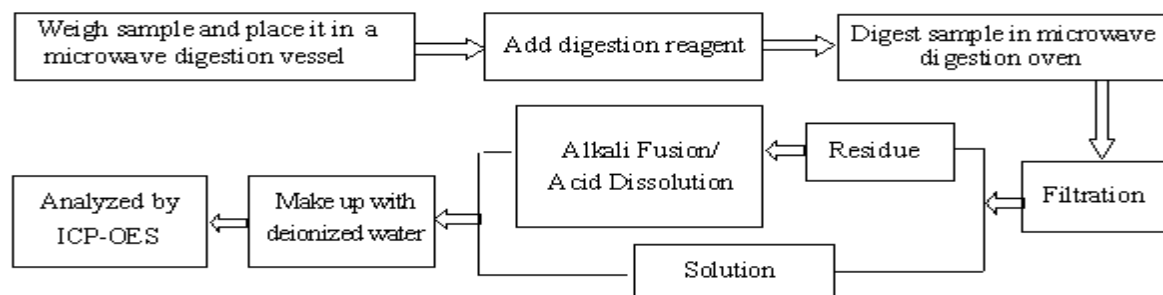
-Negative = Absence of Cr(VI), the detected Cr(VI) concentration in the boiling water extraction solution is less than 0.02 mg/kg with 50cm² sample surface area used.

Test Process

1. Lead(Pb), Cadmium(Cd)



2. Mercury(Hg)



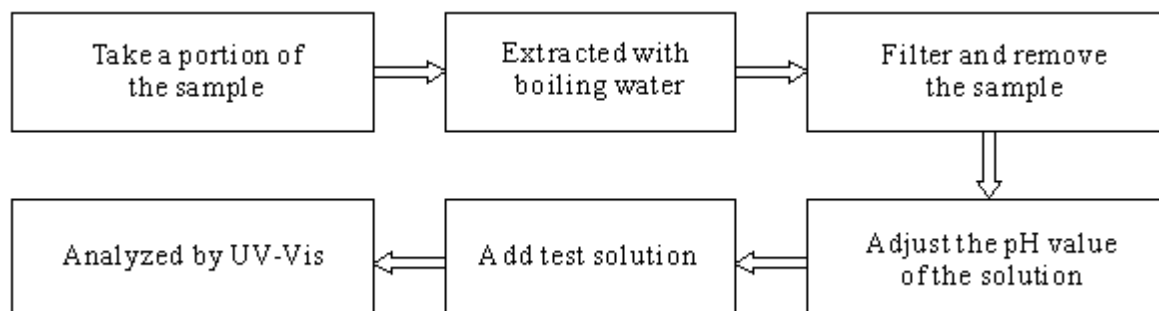
Test Report

Report No. NCL02H003750

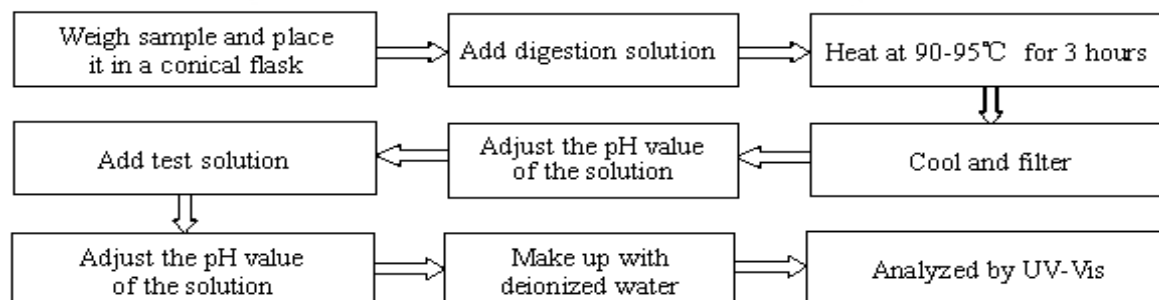
Page 6 of 9

3. Hexavalent Chromium(Cr(VI))

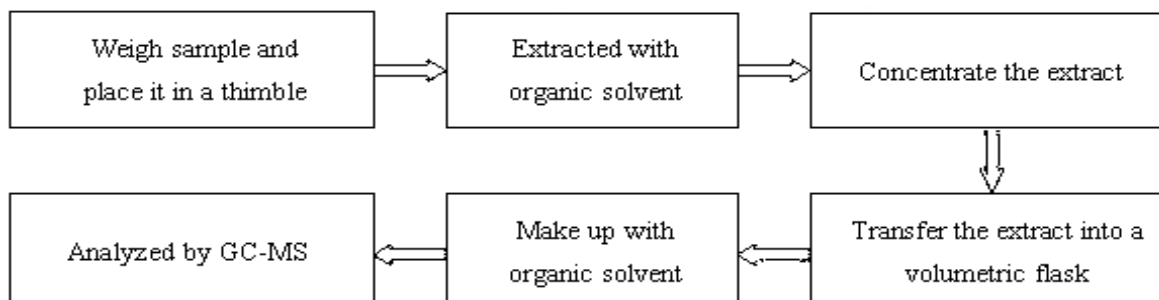
IEC 62321:2008 Ed.1 Annex B



IEC 62321:2008 Ed.1 Annex C



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

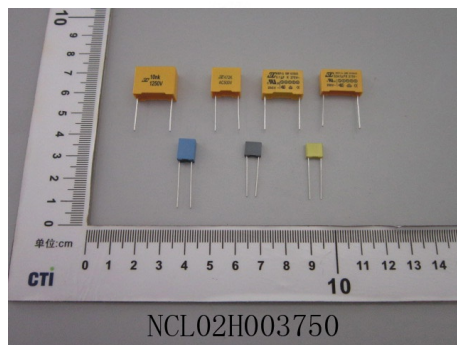


Test Report

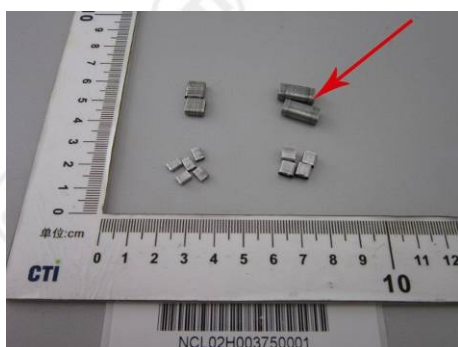
Report No. NCL02H003750

Page 7 of 9

Photo(s) of the sample(s)



Product



1



2



3



4

Test Report

Report No. NCL02H003750

Page 8 of 9

Photo(s) of the sample(s)



5



6



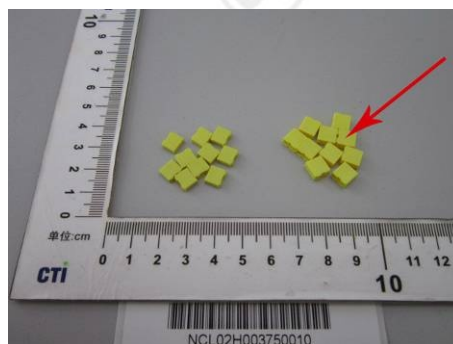
7



8



9



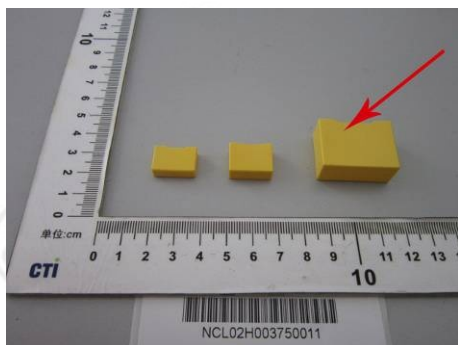
10

Test Report

Report No. NCL02H003750

Page 9 of 9

Photo(s) of the sample(s)



11



12



13

*** End of report ***

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