

Test Report

No. SHAEC1607523105

Date: 29 Apr 2016

Page 1 of 8

SHANGHAI RICHENG ELECTRONICS CO., LTD
XINSHENG INDUSTRIAL AREA, ZHELIN, FENGXIAN, SHANGHAI

The following sample(s) was/were submitted and identified on behalf of the clients as : EPDM

SGS Job No. : SP16-012500 - SH

Composition : EPDM

Date of Sample Received : 16 Apr 2016

Testing Period : 16 Apr 2016 - 21 Apr 2016


Test Requested : Selected test(s) as requested by client.

Test Method : Please refer to next page(s).

Test Results : Please refer to next page(s).

Conclusion : Based on the performed tests on submitted sample(s), the results of Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBBs), Polybrominated diphenyl ethers (PBDEs) and Phthalates such as Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP) comply with the limits as set by RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU.

Signed for and on behalf of
SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.



Helen Liu
Approved Signatory



Results shown in this test report refer only to the sample(s) tested.

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Page 2 of 8

Test Results :

Test Part Description :

Specimen No.	SGS Sample ID	Description
SN1	SHA16-075231.002	Black soft solid

Remarks :

- (1) 1 mg/kg = 0.0001%
- (2) MDL = Method Detection Limit
- (3) ND = Not Detected (< MDL)
- (4) - = Not Regulated

RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU

- Test Method :
- (1) ith reference to IEC 62321-5:2013, determination of Cadmium by ICP-OES.
 - (2) ith reference to IEC 62321-5:2013, determination of Lead by ICP-OES.
 - (3) ith reference to IEC 62321-4:2013, determination of Mercury by ICP-OES.
 - (4) ith reference to IEC 62321:2008, determination of Hexavalent Chromium by Colorimetric Method using U - is.
 - (5) ith reference to IEC 62321-6:2015, determination of PBBs and PBDEs by GC-MS.
 - (6) ith reference to IEC 62321-8 (111/321/CD), determination of phthalates by GC-MS.

Test Item(s)	Limit	Unit	MDL	002
Cadmium (Cd)	100	mg/kg	2	ND
Lead (Pb)	1000	mg/kg	2	13
Mercury (Hg)	1000	mg/kg	2	ND
Hexavalent Chromium (Cr(I))	1000	mg/kg	2	ND
Sum of PBBs	1000	mg/kg	-	ND
Monobromobiphenyl	-	mg/kg	5	ND
Dibromobiphenyl	-	mg/kg	5	ND
Tribromobiphenyl	-	mg/kg	5	ND
Tetrabromobiphenyl	-	mg/kg	5	ND
Pentabromobiphenyl	-	mg/kg	5	ND
Hexabromobiphenyl	-	mg/kg	5	ND
Heptabromobiphenyl	-	mg/kg	5	ND
Octabromobiphenyl	-	mg/kg	5	ND
Nonabromobiphenyl	-	mg/kg	5	ND
Decabromobiphenyl	-	mg/kg	5	ND
Sum of PBDEs	1000	mg/kg	-	ND



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Page 3 of 8

<u>Test Item(s)</u>	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>002</u>
Monobromodiphenyl ether	-	mg/kg	5	ND
Dibromodiphenyl ether	-	mg/kg	5	ND
Tribromodiphenyl ether	-	mg/kg	5	ND
Tetrabromodiphenyl ether	-	mg/kg	5	ND
Pentabromodiphenyl ether	-	mg/kg	5	ND
Hexabromodiphenyl ether	-	mg/kg	5	ND
Heptabromodiphenyl ether	-	mg/kg	5	ND
Octabromodiphenyl ether	-	mg/kg	5	ND
Nonabromodiphenyl ether	-	mg/kg	5	ND
Decabromodiphenyl ether	-	mg/kg	5	ND
Di-butyl Phthalate (DBP)	1000	mg/kg	50	ND
Benzyl Butyl Phthalate (BBP)	1000	mg/kg	50	ND
Di-2-Ethyl Hexyl Phthalate (DEHP)	1000	mg/kg	50	ND
Diisobutyl Phthalates (DIBP)	1000	mg/kg	50	ND

Notes :

- (1) The maximum permissible limit is quoted from RoHS Directive (EU) 2015/863.
- (2) On 4 June 2015, Commission Directive (EU) 2015/863 was published in the Official Journal of the European Union (OJEU) to include the phthalates BBP, DBP, DEHP and DIBP into ANNEX II of the Rohs Recast Directive. The new law restricts each phthalate to no more than 0.1% in each homogeneous material of an electrical product.
- (3) The restriction of DEHP, BBP, DBP and DIBP shall apply to medical devices, including in vitro medical devices, and monitoring and control instruments, including industrial monitoring and control instruments, from 22 July 2021.
- (4) The restriction of DEHP, BBP, DBP and DIBP shall not apply to cables or spare parts for the repair, the reuse, the updating of functionalities or upgrading of capacity of EEE placed on the market before 22 July 2019, and of medical devices, including in vitro medical devices, and monitoring and control instruments, including industrial monitoring and control instruments, placed on the market before 22 July 2021.
- (5) The restriction of DEHP, BBP and DBP shall not apply to toys which are already sub ect to the restriction of DEHP, BBP and DBP through entry 51 of Annex X II to Regulation (EC) No 1907/2006.

Hexabromocyclododecane (HBCDD)

Test Method : ith reference to US EPA 3550C: 2007, analysis was performed by GC-MS.



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Page 4 of 8

<u>Test Item(s)</u>	<u>CAS NO.</u>	<u>Unit</u>	<u>MDL</u>	<u>002</u>
Hexabromocyclododecane (HBCDD)	25637-99-4, 3194- 55-6	mg/kg	10	ND



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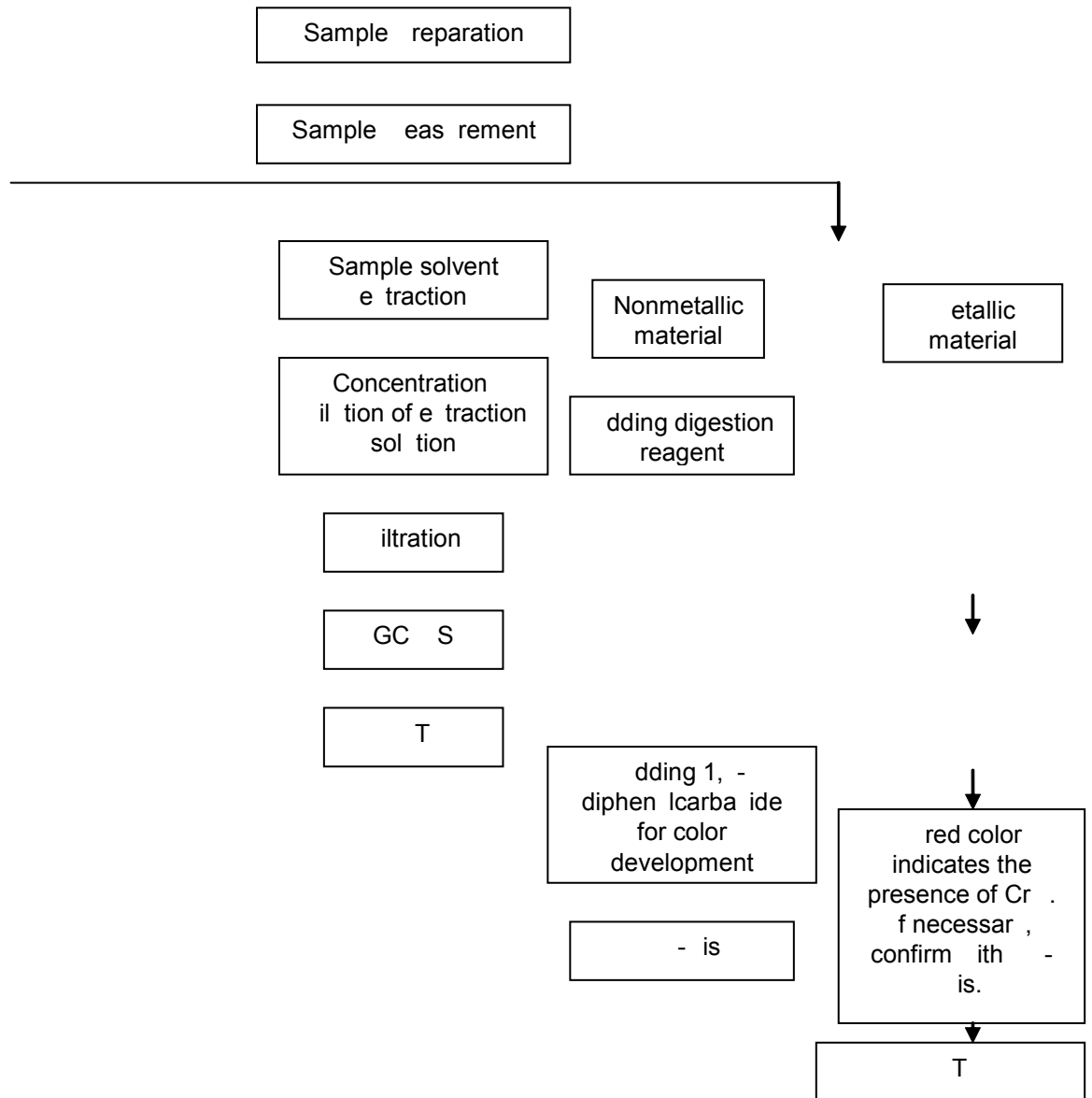
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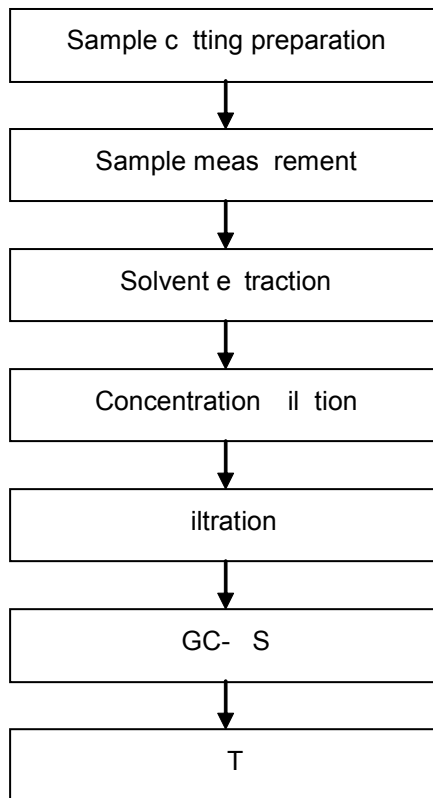
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- 1) Name of the person who made testing David Lee Gar Shimin hang S nn in
-) Name of the person in charge of testing an Shi L na ess ang Stone Chen
-) These samples were dissolved total b pre-conditioning method according to below flow chart.
(Cr and s s test method e cl ded)



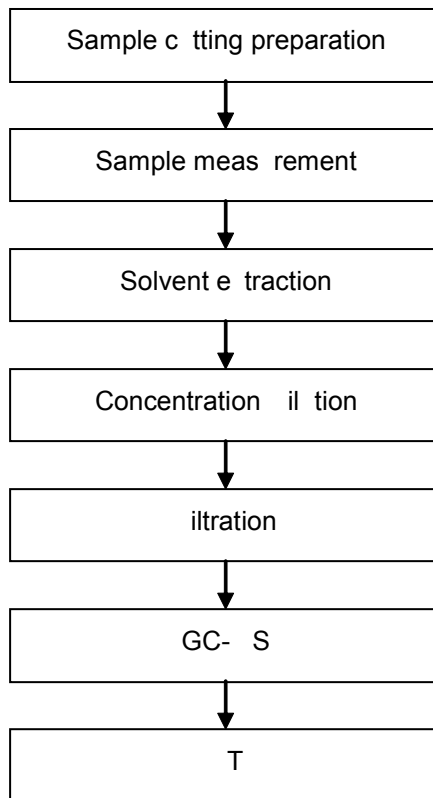
- 1) Name of the person who made testing: Sherlock Gao
- 2) Name of the person in charge of testing: Jess Wang



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