

CHANGJIANG ELECTRONICS TECHNOLOGY (CHUZHOU) CO.,LTD.
NO.999 SHIJI ROAD, NORTH INDUSTRIAL PARK,CHUZHOU,ANHUI,CHINA

The following sample(s) was/were submitted and identified on behalf of the clients as : SOD-123
include(SOD-323/523/723)

SGS Job No. : SP13-032094 - SH
Date of Sample Received : 05 Nov 2013
Testing Period : 05 Nov 2013 - 08 Nov 2013
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).

Signed for and on behalf of
SGS-CSTC Ltd.



Test Results :

Test Part Description :

| Specimen No. | SGS Sample ID | Description |
|--------------|------------------|---------------------------------------|
| 1 | SHA13-216695.005 | Black body with silvery pin(mix all*) |

Remarks :

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

RoHS Directive 2011/65/EU

- Test Method :
- (1) With reference to IEC 62321-5:2013, determination of Cadmium by ICP-OES.
 - (2) With reference to IEC 62321-5:2013, determination of Lead by ICP-OES.
 - (3) With reference to IEC 62321-4:2013, determination of Mercury by ICP-OES.
 - (4) With reference to IEC 62321:2008, determination of Hexavalent Chromium by Colorimetric Method using UV-Vis.
 - (5) With reference to IEC 62321:2008, determination of PBBs and PBDEs by GC-MS.

| Test Item(s) | Limit | Unit | MDL | Q05 |
|------------------------------|-------|-------|-----|-----|
| Cadmium (Cd) | 100 | mg/kg | 2 | ND |
| Lead (Pb) | 1000 | mg/kg | 2 | ND |
| Mercury (Hg) | 1000 | mg/kg | 2 | ND |
| Hexavalent Chromium (Cr(VI)) | 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 |
| Monobromodiphenyl ether | - | mg/kg | 5 | ND |

| <u>Test Item(s)</u> | <u>Limit</u> | <u>Unit</u> | <u>MDL</u> | <u>005</u> |
|--------------------------|--------------|-------------|------------|------------|
| 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 |

Notes :

- (1) The maximum permissible limit is quoted from directive 2011/65/EU, Annex II

Phthalates

Test Method : With reference to EN14372: 2004, analysis was performed by GC-MS.

| <u>Test Item(s)</u> | <u>CAS NO.</u> | <u>Unit</u> | <u>MDL</u> | <u>005</u> |
|-------------------------------------|---------------------------|-------------|------------|------------|
| Dibutyl Phthalate (DBP) | 84-74-2 | % | 0.003 | ND |
| Benzylbutyl Phthalate (BBP) | 85-68-7 | % | 0.003 | ND |
| Bis-(2-ethylhexyl) Phthalate (DEHP) | 117-81-7 | % | 0.003 | ND |
| Diisononyl Phthalate (DINP) | 28553-12-0/ 68515-48-0 | % | 0.010 | ND |
| Di-n-octyl Phthalate (DNOP) | 117-84-0 | % | 0.003 | ND |
| Diisodecyl Phthalate (DIDP) | 26761-40-0/ 68515-49-1 | % | 0.010 | ND |
| Di-n-hexyl Phthalate (DnHP) | 84-75-3 | % | 0.003 | ND |
| Diisobutyl Phthalate (DIBP) | 84-69-5 | % | 0.003 | ND |

Notes :

- (1) DBP, BBP, DEHP Reference information: Entry 51 of Regulation (EC) No 552/2009 amending Annex XVII of REACH Regulation (EC) No 1907/2006 (previously restricted under Directive 2005/84/EC):
- Shall not be used as substances or in mixtures, in concentrations greater than 0.1 % by weight of the plasticised material, in toys and childcare articles.
 - Toys and childcare articles containing these phthalates in a concentration greater than 0.1 % by

weight of the plasticised material shall not be placed on the market.

Please refer to Regulation (EC) No 552/2009 to get more detail information

DINP, DNOP, DIDP Reference information: Entry 52 of Regulation (EC) No 552/2009 amending Annex XVII of REACH Regulation (EC) No 1907/2006 (previously restricted under Directive 2005/84/EC).

- i) Shall not be used as substances or in mixtures, in concentrations greater than 0.1 % by weight of the plasticised material, in toys and childcare articles which can be placed in the mouth by children.
- ii) Such toys and childcare articles containing these phthalates in a concentration greater than 0.1 % by weight of the plasticised material shall not be placed on the market.

Please refer to Regulation (EC) No 552/2009 to get more detail information

Tetrabromobisphenol A (TBBP-A)

Test Method : With reference to US EPA 3540C: 1996, analysis was performed by GC-MS.

| <u>Test Item(s)</u> | <u>Unit</u> | <u>MDL</u> | <u>005</u> |
|--------------------------------|-------------|------------|------------|
| Tetrabromobisphenol A (TBBP-A) | mg/kg | 10 | ND |

Hexabromocyclododecane (HBCDD)

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

| <u>Test Item(s)</u> | <u>Unit</u> | <u>MDL</u> | <u>005</u> |
|--------------------------------|-------------|------------|------------|
| Hexabromocyclododecane (HBCDD) | mg/kg | 10 | ND |

PFOS (Perfluorooctane Sulfonates) and PFOA (Perfluorooctanoic Acid)

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

| <u>Test Item(s)</u> | <u>Limit</u> | <u>Unit</u> | <u>MDL</u> | <u>005</u> |
|--|--------------|-------------|------------|------------|
| Perfluorooctane Sulfonates (PFOS) and related Acid, Metal Salt and Amide | 1000 | mg/kg | 10 | ND |
| Perfluorooctanoic Acid (PFOA) | - | mg/kg | 10 | ND |

Notes :

Max. limit specified by commission regulation (EU) No. 757/2010 (previously restricted under entry 53 of Regulation (EC) No 552/2009 amending Annex XVII of REACH Regulation (EC) No 1907/2006)

Polycyclic aromatic hydrocarbons (PAH)

Test Method : With reference to ZEK 01.4-08 of German ZLS and its amendments, analysis was performed by GC-MS.

| <u>Test Item(s)</u> | <u>Unit</u> | <u>MDL</u> | <u>Q05</u> |
|--|-------------|------------|------------|
| Sum of 18 PAH | mg/kg | - | ND |
| Naphthalene(NAP) | mg/kg | 0.2 | ND |
| Acenaphthylene(ANY) | mg/kg | 0.2 | ND |
| Acenaphthene(ANA) | mg/kg | 0.2 | ND |
| Fluorene(FLU) | mg/kg | 0.2 | ND |
| Phenanthrene(PHE) | mg/kg | 0.2 | ND |
| Anthracene(ANT) | mg/kg | 0.2 | ND |
| Fluoranthene(FLT) | mg/kg | 0.2 | ND |
| Pyrene(PYR) | mg/kg | 0.2 | ND |
| Benzo(a)anthracene(BaA) | mg/kg | 0.2 | ND |
| Chrysene(CHR) | mg/kg | 0.2 | ND |
| Benzo(b)fluoranthene(BbF) and Benzo(j)fluoranthene(BjF) | mg/kg | 0.4 | ND |
| Benzo(k)fluoranthene(BkF) | mg/kg | 0.2 | ND |
| Benzo(a)pyrene(BaP) | mg/kg | 0.2 | ND |
| Benzo(e)pyrene(BeP) | mg/kg | 0.2 | ND |
| Indeno(1,2,3-c,d)pyrene(IPY) | mg/kg | 0.2 | ND |
| Dibenzo(a,h)anthracene(DBA) | mg/kg | 0.2 | ND |
| Benzo(g,h,i)perylene(BPE) | mg/kg | 0.2 | ND |

ZEK 01_4-08: Restraining maximum values for products

| Parameter | Category 1 | Category 2 | Category 3 |
|------------------------|---|--|--|
| | Material intended to be put in the mouth or material for toys with normal skin contact for children aged <36 months | Materials those are not included in Category 1, with predictable contact with the skin longer than 30 s. (long-term skin contact). | Materials those are not included in Category 1 or 2, with predictable skin contact up to 30 s (short-term skin contact). |
| Benzo(a)pyrene (mg/kg) | <0.2** | 1 | 20 |
| Sum of 18 PAH (mg/kg)* | <0.2** | 10 | 200 |

Notes:

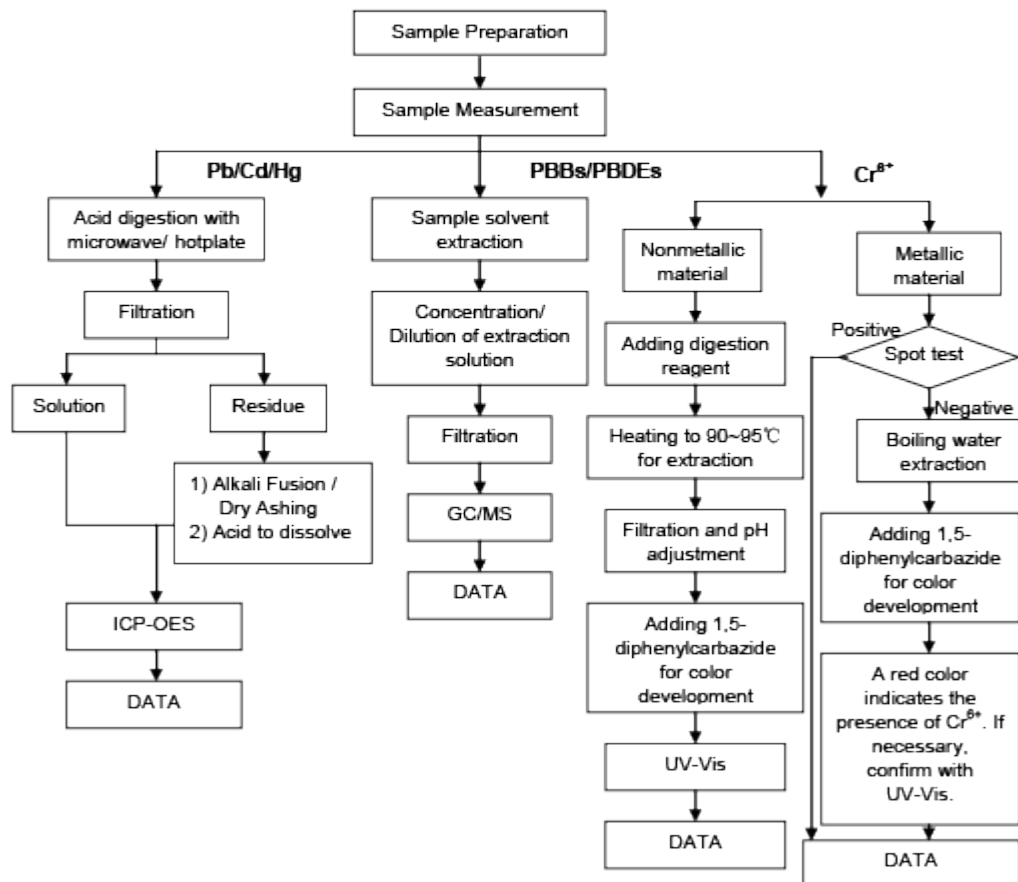
- * = Only PAH substances >0.2 mg/kg are taken into account while calculating the sum of PAHs
- ** = In case that the maximum values exceed the limits of category 1, but are within the limits of category 2, one may confirm the suitability of the tested material which is intended to be put in the mouth by additional specific migration tests of PAH components based on DIN EN 11867/EN13130 and §54 LFGB 80.30-1. The conclusion of the migration test results must be made based on food law criteria.

Remark: *The sample(s) was/were analyzed on behalf of the applicant as mixing sample in one testing. The above result(s) was/were only given as the informality value and only for reference.

ATTACHMENTS

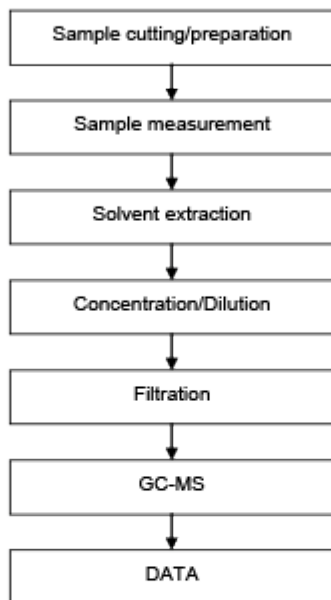
RoHS Testing Flow Chart

- 1) Name of the person who made testing: Jan Shi/Star Wang/Shara Wang/Gary Xu
- 2) Name of the person in charge of testing: Jeff Zhang/George Xu/ Jessy Huang
- 3) These samples were dissolved totally by pre-conditioning method according to below flow chart. (Cr^{6+} and PBBs/PBDEs test method excluded)



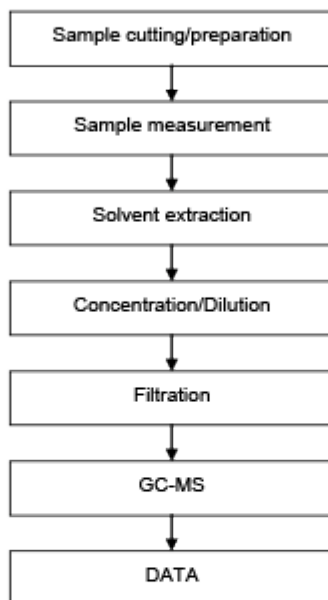
Phthalates Testing Flow Chart

- 1) Name of the person who made testing: Elyn Yao
- 2) Name of the person in charge of testing: Myra Ma



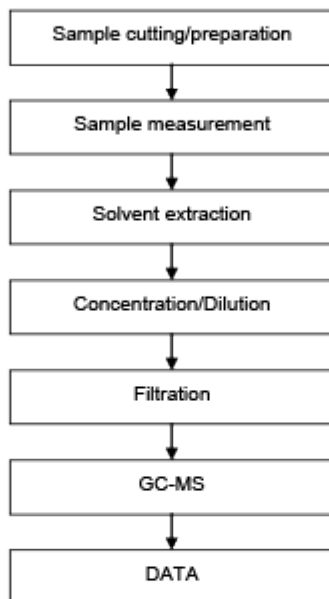
HBCDD Testing Flow Chart

- 1) Name of the person who made testing: Gary Xu
- 2) Name of the person in charge of testing: Jessy Huang



PAH Testing Flow Chart

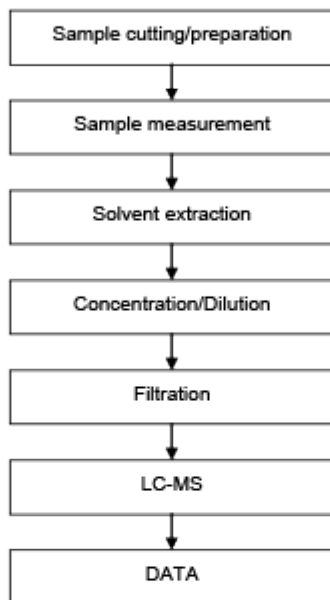
- 1) Name of the person who made testing: Lisa Duan
- 2) Name of the person in charge of testing: Jessie Huang



PFOS/PFOA Testing Flow Chart

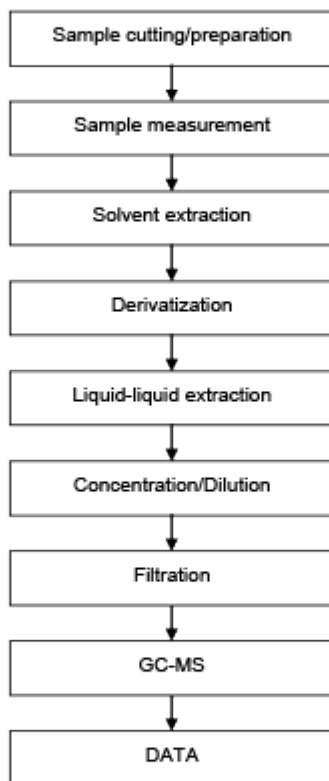
1) Name of the person who made testing: Mary Yang

2) Name of the person in charge of testing: Judy Li



TBBP-A Testing Flow Chart

- 1) Name of the person who made testing: Gary Xu
- 2) Name of the person in charge of testing: Jessie Huang



Sample photo:



SGS authenticate the photo on original report only

*** End of Report ***