

No. SHAEC1205565413

Date: 02 May 2012

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#### FULLCHANCE SILICONE(SHENZHEN)CO.,LTD BUILDING H,XINWEI 3RD INDUSTRIAL ZONE,DALANG STREET,LONGHUA TOWN BAO'AN SHENZHEN

The following sample(s) was/were submitted and identified on behalf of the clients as : General Purpose Fire Resistant Silicone Rubber

SGS Job No. : SP12-010825 - SH Composition : Silicone gum, Silica

Model No.: NE-Z140

Sample May Cover : NE-Z150,NE-Z160,NE-Z170,NE-Z180,NE-Z250,NE-Z260,NE-Z270

Date of Sample Received: 17 Apr 2012

Testing Period : 17 Apr 2012 - 28 Apr 2012

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 samples, the results of Lead,

Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBB), Polybrominated diphenyl ethers (PBDE) comply with the limits as set by RoHS

Directive 2011/65/EU Annex II; recasting 2002/95/EC.

When tested as specified, Dimethyl fumarate(DMF) content of the submitted sample comply with the requirement of Commission Decision 2011/135/EU

(previously restricted under 2010/153/EU and 2009/251/EC)

Signed for and on behalf of SGS-CSTC Ltd.

Fan Jingjie, JJ Approved Signatory



# **Test Report** No. SHAEC1205565413 Date: 02 May 2012 Page 2 of 17

Test Results:

#### **Test Part Description:**

Specimen No. SGS Sample ID Description

1 SHA12-055654.002 White soft solid

#### 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: With reference to IEC 62321:2008

- (1) Determination of Cadmium by ICP-OES.
- (2) Determination of Lead by ICP-OES.
- (3) Determination of Mercury by ICP-OES.
- (4) Determination of Hexavalent Chromium by Colorimetric Method using UV-Vis.
- (5) Determination of PBBs / PBDEs content by GC-MS.

Test Item(s)	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>002</u>
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

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Test Item(s)	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>002</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

#### **Halogen**

Test Method: With reference to EN 14582: 2007, analysis was performed by Ion Chromatograph (IC).

Test Item(s)	<u>Unit</u>	<u>MDL</u>	<u>002</u>
Fluorine (F)	mg/kg	50	ND
Chlorine (CI)	mg/kg	50	ND
Bromine (Br)	mg/kg	50	ND
Iodine (I)	mg/kg	50	ND

#### **Phthalates**

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

Test Item(s)	<u>Unit</u>	<u>MDL</u>	<u>002</u>
Dibutyl Phthalate (DBP)	%	0.003	ND
Benzylbutyl Phthalate (BBP)	%	0.003	ND
Bis-(2-ethylhexyl) Phthalate (DEHP)	%	0.003	ND
Diisononyl Phthalate (DINP)	%	0.010	ND
Di-n-octyl Phthalate (DNOP)	%	0.003	ND
Diisodecyl Phthalate (DIDP)	%	0.010	ND
Dimethyl Phthalate (DMP)	%	0.003	ND
Diethyl Phthalate (DEP)	%	0.003	ND
Diisobutyl Phthalate (DIBP)	%	0.003	ND
Dipentyl Phthalate (DPP)	%	0.003	ND

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Test Item(s)		<u>Unit</u>	<u>MDL</u>	<u>002</u>	
Dicyclohexyl Phthalate (DCHP)		%	0.003	ND	
Diphenyl Phthalate (DPhP)		%	0.003	ND	
Dibenzyl Phthalate (DBzP)		%	0.003	ND	
Diisooctyl Phthalate (DiOP)		%	0.010	ND	
Dipropyl Phthalate (DPrP)		%	0.003	ND	
Dinonyl Phthalate (DNP)		%	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):
  - 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.
  - ii) 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

#### Organic-tin compounds

Test Method: With reference to ISO 17353: 2004 with carbamate, analysis was performed by GC-MS.

Test Item(s)	<u>Unit</u>	<u>MDL</u>	<u>002</u>
Dibutyl tin (DBT)	mg/kg	0.02	ND
Tributyl tin (TBT)	mg/kg	0.02	ND
Dioctyl tin (DOT)	mg/kg	0.02	ND
Triphenyl tin (TPT)	mg/kg	0.02	ND

#### Tetrabromobisphenol A (TBBP-A)

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

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 Test Item(s)
 Unit
 MDL
 002

 Tetrabromobisphenol A (TBBP-A)
 mg/kg
 10
 ND

# <u>Commission Decision 2011/135/EU (previously restricted under 2010/153/EU and 2009/251/EC) - Dimethyl fumarate(DMF)</u>

Test Method: Solvent extraction, analysis was performed by GC-MS.

Test Item(s)LimitUnitMDL002Dimethyl fumarate(DMF)0.1mg/kg0.1ND

### **Bisphenol-A**

Test Method: Extraction by organic solvent, Analysis by HPLC-DAD/MS.

 Test Item(s)
 Unit
 MDL
 002

 Bisphenol-A
 mg/kg
 1
 ND

### Nonylphenol (NP)

Test Method: In-house method (SHTC-CHEM-SOP-92-T), analysis was performed by LC-MS

 Test Item(s)
 Unit
 MDL
 002

 Nonylphenol(NP)
 mg/kg
 10
 ND

#### Notes:

(1) NP Reference Information: Entry 46 of Regulation (EC) No 552/2009 amending Annex XVII of REACH Regulation (EC) No 1907/2006 (previously restricted under Directive 2003/53/EC): Shall not be placed on the market, or used, as substances or in mixtures in concentrations equal to or greater than 0,1 % by weight for industrial and institutional cleaning, domestic cleaning, textiles and leather processing, emulsifier in agricultural teat dips, metal working, manufacturing of pulp and paper, cosmetic products, other personal care products and co-formulants in pesticides and biocides.

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

#### PFOS (Perfluorooctane Sulfonates) and PFOA (Perfluorooctanoic Acid)

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

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Test Item(s)	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>002</u>
Perfluorooctane Sulfonates (PFOS) and related	1000	mg/kg	10	ND
Acid,Metal Salt and Amide				
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)

### Polynuclear Aromatic Hydrocarbons (PAHs)

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

Test Item(s)	<u>Unit</u>	<u>MDL</u>	002
Sum of 18 PAHs	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	mg/kg	0.4	ND
Benzo(j)fluoranthene(BjF)			
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

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#### ZEK 01.4-08: Restraining maximum values for products

Parameter	Category 1	Category 2	Category 3
	Material indented 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 indented to be put in the mouth by additional specific migration tests of PAH components based on DIN EN 1186ff and §64 LFGB 80.30-1. The conclusion of the migration test results must be made based on food law criteria.



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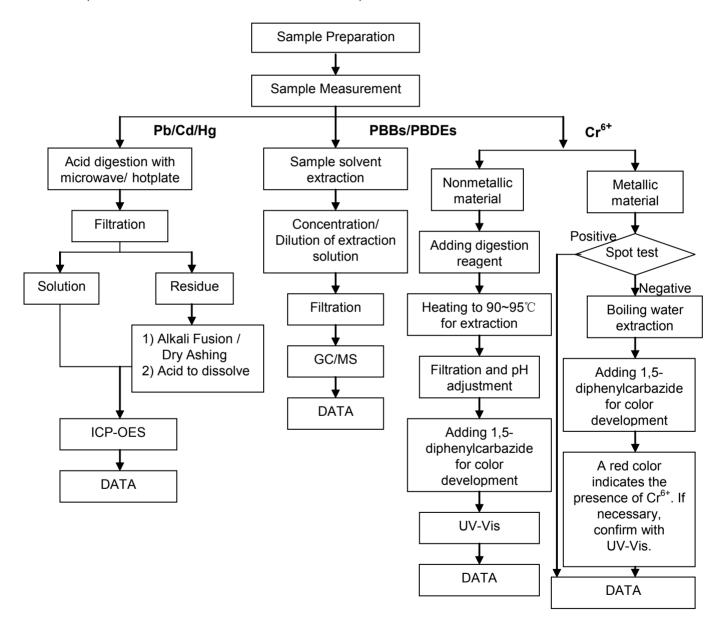
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#### **ATTACHMENTS**

### **RoHS Testing Flow Chart**

- 1) Name of the person who made testing: Jan Shi/Yoyo Wang/Allen Xiao/Gary Xu
- 2) Name of the person in charge of testing: Jeff Zhang/George Xu/ Linda Li
- 3) These samples were dissolved totally by pre-conditioning method according to below flow chart. (Cr6+ and PBBs/PBDEs test method excluded)



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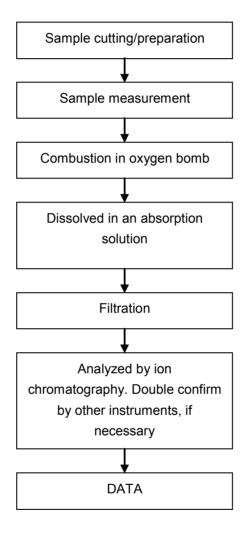


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### **Halogen Testing Flow Chart**

- 1) Name of the person who made testing: Sisily Yin
- 2) Name of the person in charge of testing: Zirco Yu





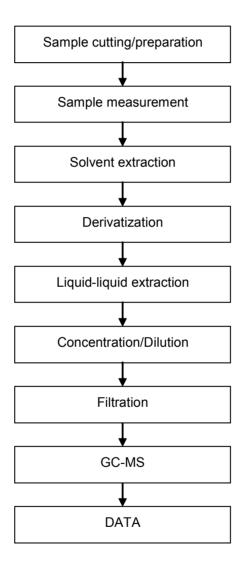
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### **TBBP-A Testing Flow Chart**

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



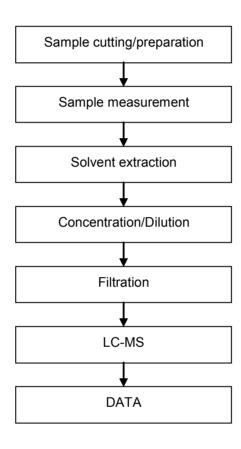


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### **PFOS/PFOA Testing Flow Chart**

- 1) Name of the person who made testing: Judy Li
- 2) Name of the person in charge of testing: Linda Li





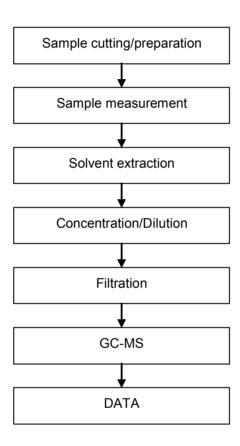
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### **PAHs Testing Flow Chart**

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





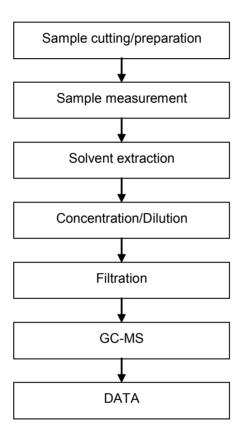
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### **DMF (Dimethyl fumarate) Testing Flow Chart**

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





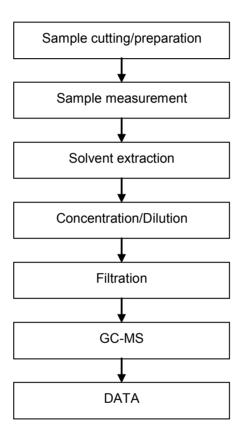
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### **Phthalates Testing Flow Chart**

1) Name of the person who made testing: Elyn Yao

2) Name of the person in charge of testing: Rachel Zhang





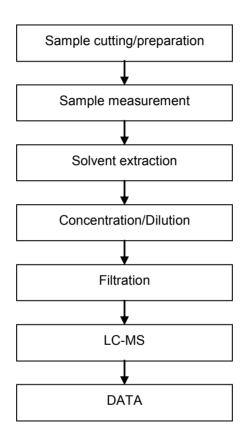
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### **NP Testing Flow Chart**

- 1) Name of the person who made testing: Judy Li
- 2) Name of the person in charge of testing: Linda Li



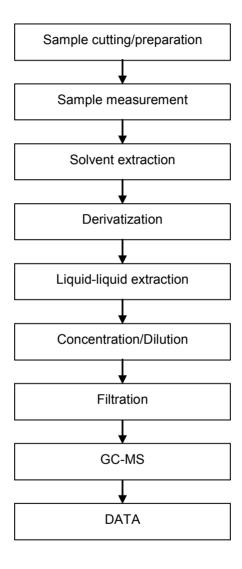


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### **Organotin Testing Flow Chart**

- 1) Name of the person who made testing: Jessi Zhu
- 2) Name of the person in charge of testing: Linda Li





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Sample photo:



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\*\*\* End of Report \*\*\*

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