

Test Report

No. CANEC1802628343

Date: 01 Mar 2018

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LECCO (ZHONGSHAN) ADHESIVE PRODUCTS CO.,LTD.

GUANGFU AVENUE,DONGSHENG TOWN,ZHONGSHAN CITY GUANGDONG PROVINCE,CHINA.

LECCO (KAIPING) ADHESIVE PRODUCTS CO.,LTD

NO 7-8 FIVE DISTRICT, THE SECOND (CANGCHENG) INDUSTRIAL PARK, KAIPING CITY, JIANGMEN, GUANGDONG PROVINCE, CHINA.

The following sample(s) was/were submitted and identified on behalf of the clients as : Clear BOPP lamination film

SGS Job No. : CP18-005667 - GZ

Date of Sample Received : 05 Feb 2018

Testing Period : 05 Feb 2018 - 22 Feb 2018

Test Requested : As specified by client, selected parts of the submitted sample(s) for compliance with Consumer Product Safety Improvement Act of 2008, CPSIA:

- Phthalates

Other test(s) as requested by client.

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

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

Result Summary :

Test Requested	Conclusion
RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU	PASS
European Directive 94/62/EC and its amendments - Total Lead, Cadmium, Mercury and Hexavalent Chromium Content	PASS
EN 71-3:2013+A2:2017-Migration of Certain Elements (Category III: Scrapped-off toy material)	PASS
American Society for Testing and Materials-ASTM F 963-16(Clause 4.3.5) -total Lead in Substrate Materials	See Results
Halogen	See Results
ASTM F 963-16 (Clause 4.3.5) & EN71 Part 3 : 1994 (including amendment A1:2000/ AC:2002)-Migration of Certain Elements.	See Results
CPSIA section 108 - Phthalates	PASS
Phthalate	See Results
PFOS (Perfluorooctane sulfonates)	See Results



Signed for and on behalf of
SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch

Echo Yeung
Approved Signatory

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Test Results :

Test Part Description :

Specimen No.	SGS Sample ID	Description
SN1	CAN18-026283.017	Transparent adhesive sheet

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 : With reference to IEC 62321-4:2013+A1:2017, IEC62321-5:2013, IEC62321-7-2:2017 , IEC 62321-6:2015 and IEC62321-8:2017, analyzed by ICP-OES , UV-Vis and GC-MS .

<u>Test Item(s)</u>	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>017</u>
Cadmium (Cd)	100	mg/kg	2	ND
Lead (Pb)	1000	mg/kg	2	ND
Mercury (Hg)	1000	mg/kg	2	ND
Hexavalent Chromium (CrVI)	1000	mg/kg	8	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
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



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<u>Test Item(s)</u>	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>017</u>
Octabromodiphenyl ether	-	mg/kg	5	ND
Nonabromodiphenyl ether	-	mg/kg	5	ND
Decabromodiphenyl ether	-	mg/kg	5	ND
Dibutyl phthalate (DBP)	-	mg/kg	50	ND
Butyl benzyl phthalate (BBP)	-	mg/kg	50	ND
Bis (2-ethylhexyl) phthalate (DEHP)	-	mg/kg	50	ND
Diisobutyl Phthalates (DIBP)	-	mg/kg	50	ND

Notes :

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

European Directive 94/62/EC and its amendments - Total Lead, Cadmium, Mercury and Hexavalent Chromium Content

Test Method : With reference to GZTC CHEM-TOP-174-01. Analysis of Cadmium, Lead and Mercury was performed by ICP-OES. Analysis of Hexavalent Chromium (Cr(VI)) was performed by UV-Vis

<u>Test Item(s)</u>	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>017</u>
Cadmium (Cd)	-	mg/kg	5	ND
Lead (Pb)	-	mg/kg	5	ND
Hexavalent Chromium (CrVI)	-	mg/kg	5	ND
Mercury (Hg)	-	mg/kg	5	ND
Total (Pb + Cd + Cr VI + Hg)	100	mg/kg	-	ND

EN 71-3:2013+A2:2017-Migration of Certain Elements (Category III: Scrapped-off toy material)

Test Method : With reference to EN 71-3:2013+A2:2017. Analysis was performed by ICP-OES.

<u>Test Item(s)</u>	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>017</u>
Soluble Aluminum(Al)	70000	mg/kg	50	ND
Soluble Arsenic (As)	47	mg/kg	10	ND
Soluble Boron(B)	15000	mg/kg	50	ND
Soluble Barium (Ba)	18750	mg/kg	50	ND
Soluble Cadmium (Cd)	17	mg/kg	5	ND
Soluble Cobalt(Co)	130	mg/kg	10	ND
Soluble Chromium (III) (Cr (III))	460	mg/kg	5	ND
Soluble Copper(Cu)	7700	mg/kg	50	ND
Soluble Mercury (Hg)	94	mg/kg	10	ND
Soluble Manganese(Mn)	15000	mg/kg	50	ND
Soluble Nickel(Ni)	930	mg/kg	10	ND



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<u>Test Item(s)</u>	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>017</u>
Soluble Lead (Pb)	160	mg/kg	10	ND
Soluble Antimony (Sb)	560	mg/kg	10	ND
Soluble Selenium (Se)	460	mg/kg	10	ND
Soluble Zinc (Zn)	46000	mg/kg	50	ND
Soluble Strontium(Sr)	56000	mg/kg	50	ND
Soluble Tin(Sn)	180000	mg/kg	4.9	ND
Soluble Organic Tin	12	mg/kg	-	ND
Soluble Chromium (VI) (Cr (VI))	0.2	mg/kg	0.18	ND

Notes :

- 1.Soluble Chromium (III)= Soluble Total Chromium- Soluble Chromium (VI)
2. Confirmation test of soluble chromium (III) & chromium (VI) is not required in case of soluble chromium does not exceed their requirements as specified in EN 71-3:2013+A2:2017.
3. Confirmation test of soluble organic tin is not required in case of soluble tin, after conversion, does not exceed the soluble organic tin requirement as specified in EN 71-3:2013+A2:2017.

American Society for Testing and Materials-ASTM F 963-16(Clause 4.3.5) -total Lead in Substrate Materials

Test Method : With reference to CPSC-CH-E1002-08.3. Analysis was performed by ICP-OES.

<u>Test Item(s)</u>	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>017</u>
Total Lead (Pb)	100	mg/kg	20	ND

Halogen

Test Method : With reference to EN 14582:2016, analysis was performed by IC.

<u>Test Item(s)</u>	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>017</u>
Fluorine (F)	-	mg/kg	50	ND
Chlorine (Cl)	900	mg/kg	50	ND
Bromine (Br)	900	mg/kg	50	ND
Iodine (I)	-	mg/kg	50	ND

Notes :

Cl+Br < 1500mg/kg. The limit was submitted by applicant.



ASTM F 963-16 (Clause 4.3.5) & EN71 Part 3 : 1994 (including amendment A1:2000/ AC:2002)-Migration of Certain Elements.

Test Method : With reference to ASTM F 963-16(Claue 8.3)& EN71 Part 3 : 1994, analysis was performed by ICP-OES.

<u>Test Item(s)</u>	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>017</u>
Soluble Lead (Pb)	90	mg/kg	5	ND
Soluble Antimony (Sb)	60	mg/kg	5	ND
Soluble Arsenic (As)	25	mg/kg	2.5	ND
Soluble Barium (Ba)	1000	mg/kg	10	ND
Soluble Cadmium (Cd)	75	mg/kg	5	ND
Soluble Chromium (Cr)	60	mg/kg	5	ND
Soluble Mercury (Hg)	60	mg/kg	5	ND
Soluble Selenium (Se)	500	mg/kg	10	ND

Notes :

(1)Results shown are of the adjusted analytical results

CPSIA section 108 - Phthalates

Test Method : With reference to CPSC-CH-C1001-09.3, analysis was performed by GC-MS

Concentration of phthalates in components of toy product

<u>Test Item(s)</u>	<u>CAS NO</u>	<u>Permissible Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>017</u>
Dibutyl Phthalate (DBP)	84-74-2	0.1	%(w/w)	0.005	ND
Benzylbutyl Phthalate (BBP)	85-68-7	0.1	%(w/w)	0.005	ND
Bis(2-ethylhexyl) Phthalate (DEHP)	117-81-7	0.1	%(w/w)	0.005	ND

Comment

PASS

Concentration of phthalates in components of toy that can be placed in the mouth or childcare article



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<u>Test Item(s)</u>	<u>CAS NO</u>	<u>Permissible</u> <u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>017</u>
Diisononyl Phthalate (DINP)	28553-12-0 / 68515-48-0	0.1	%(w/w)	0.005	ND
Di-n-octyl Phthalate (DNOP)	117-84-0	0.1	%(w/w)	0.005	ND
Diisodecyl Phthalate (DIDP)	26761-40-0 / 68515-49-1	0.1	%(w/w)	0.005	ND

Comment

PASS

Phthalate

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>017</u>
Dibutyl Phthalate (DBP)	84-74-2	%(w/w)	0.003	ND
Benzylbutyl Phthalate (BBP)	85-68-7	%(w/w)	0.003	ND
Bis(2-ethylhexyl) Phthalate (DEHP)	117-81-7	%(w/w)	0.003	ND
Diisononyl Phthalate (DINP)	28553-12-0 / 68515-48-0	%(w/w)	0.010	ND
Di-n-octyl Phthalate (DNOP)	117-84-0	%(w/w)	0.003	ND
Diisodecyl Phthalate (DIDP)	26761-40-0 / 68515-49-1	%(w/w)	0.010	ND
Di-n-hexyl Phthalate (DnHP)	84-75-3	%(w/w)	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
- (2)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
- (3) DBP+BBP+DEHP < 1000mg/kg, DINP+DNOP+DIDP < 1000mg/kg. The limit was submitted by



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applicant.

PFOS (Perfluorooctane sulfonates)

Test Method : With reference to CEN/TS15968:2010, analysis was performed by LC-MS.

<u>Test Item(s)</u>	<u>CAS NO.</u>	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>017</u>
Perfluorooctane Sulfonates (PFOS)^	-	1000	mg/kg	10	ND

Notes :

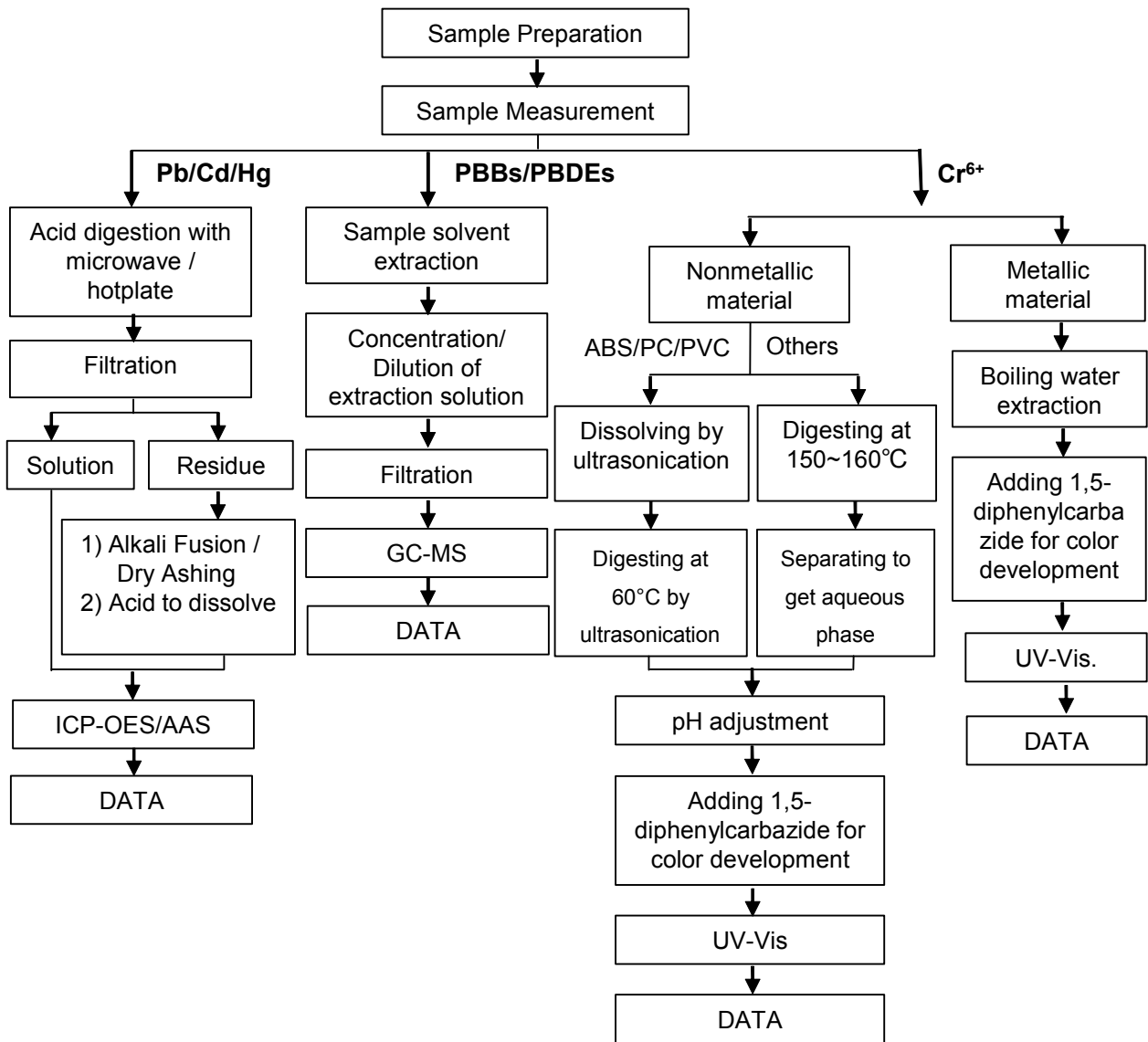
- (1) ^ PFOS refer to Perfluorooctanesulfonic acid and its derivatives including Perfluorooctanesulfonic acid, Perfluorooctane sulfonamide, N-Methylperfluorooctane sulfonamide, N-Ethylperfluorooctane sulfonamide, N-Methylperfluorooctane sulfonamidoethanol and N-Ethylperfluorooctane sulfonamidoethanol.
- (2) The limit was submitted by applicant.



ATTACHMENTS

Pb/Cd/Hg/Cr⁶⁺/PBBs/PBDEs Testing Flow Chart

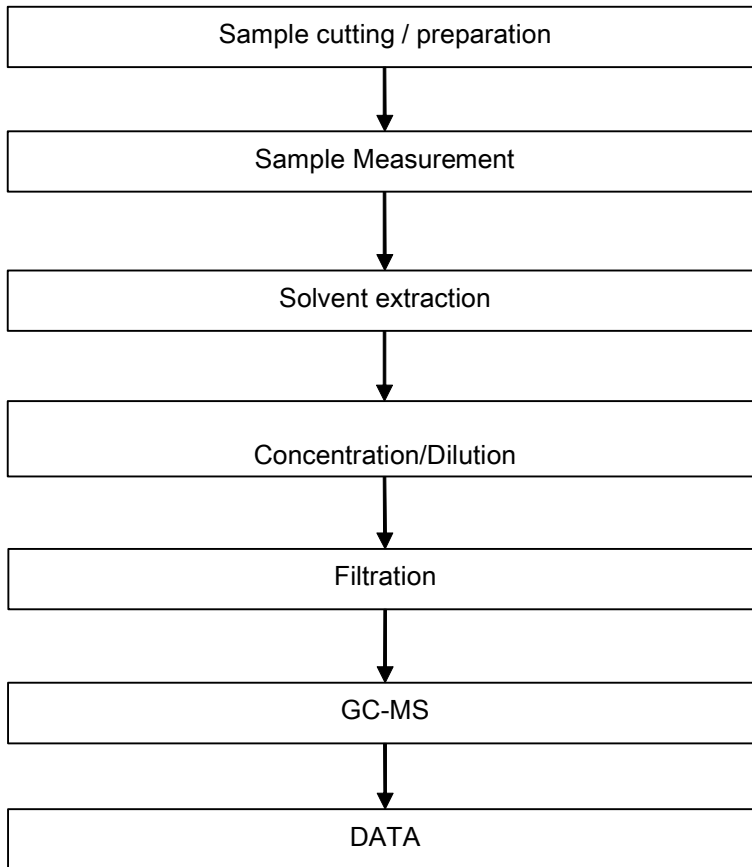
- 1) Name of the person who made testing: Edith Zhang / Sunny Hu
- 2) Name of the person in charge of testing: Bella Wang / Qiong Liu
- 3) These samples were dissolved totally by pre-conditioning method according to below flow chart. (Cr⁶⁺ and PBBs/PBDEs test method excluded).



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Phthalates Testing Flow Chart

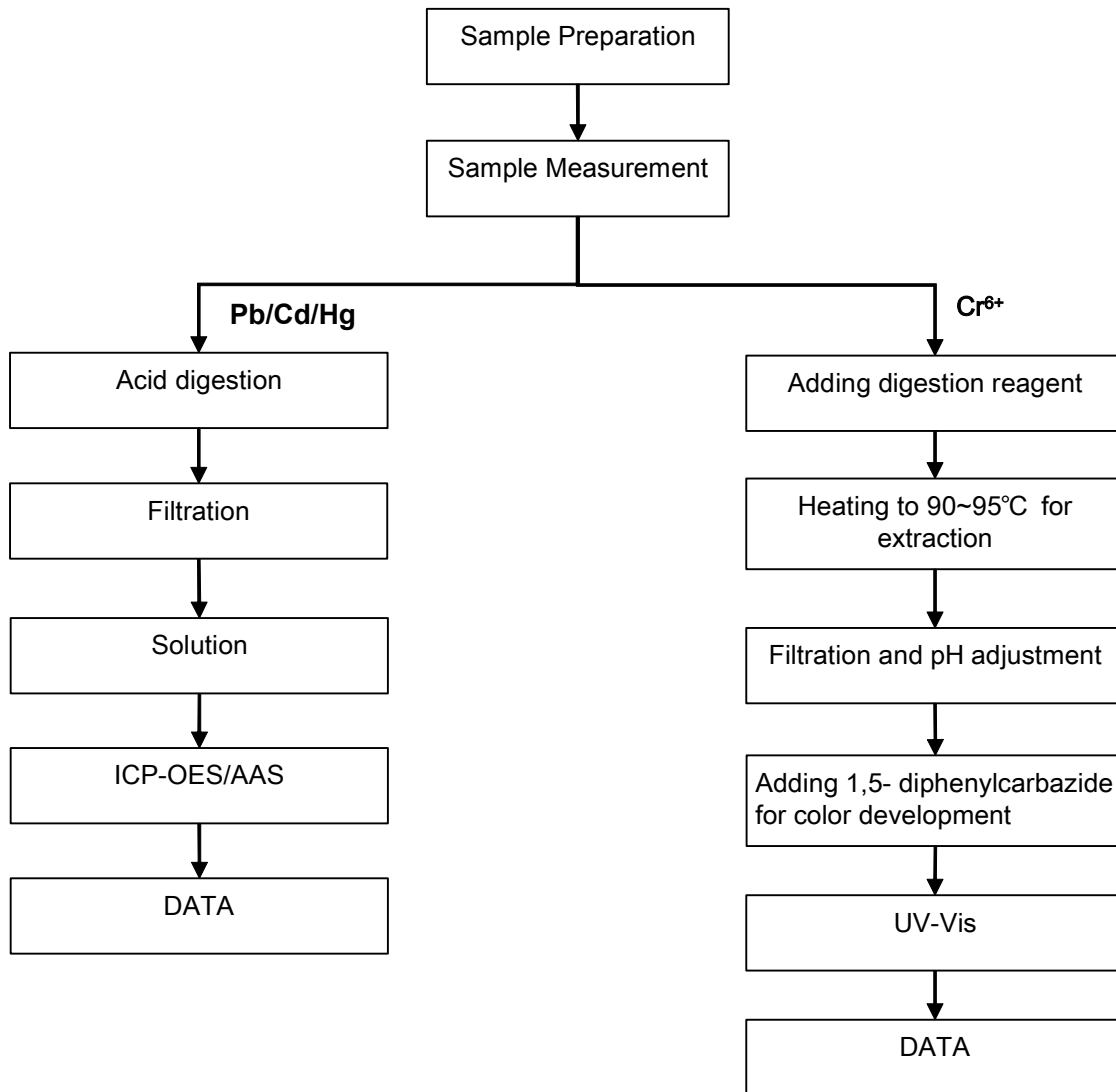
- 1) Name of the person who made testing: Sunny Hu
- 2) Name of the person in charge of testing: Qiong Liu



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Pb/Cd/Hg/Cr⁶⁺ Testing Flow Chart

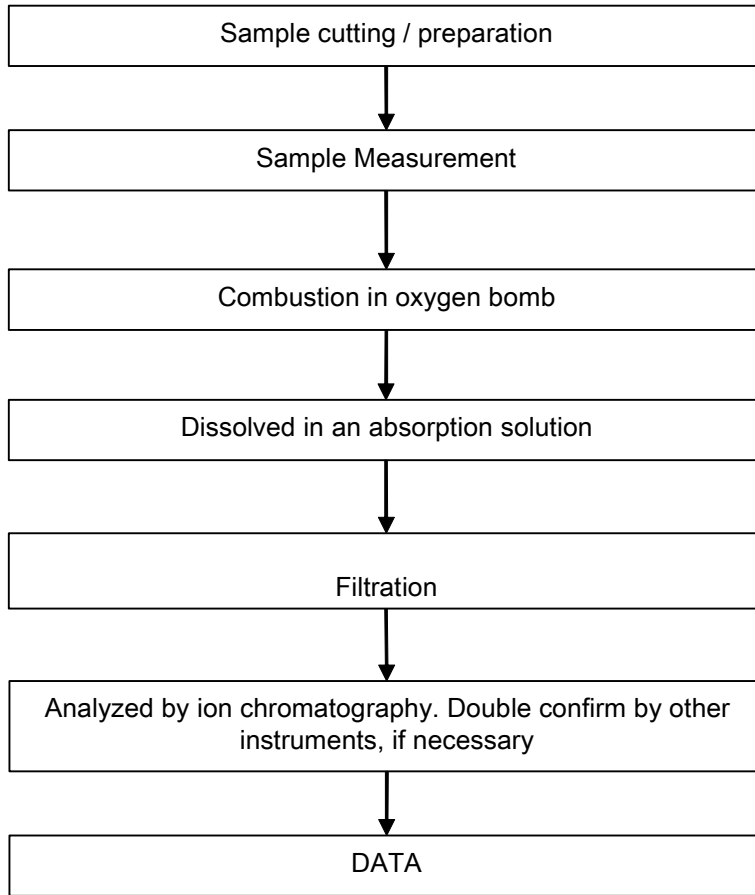
- 1) Name of the person who made testing: Edith Zhang
- 2) Name of the person in charge of testing: Bella Wang



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Halogen Testing Flow Chart

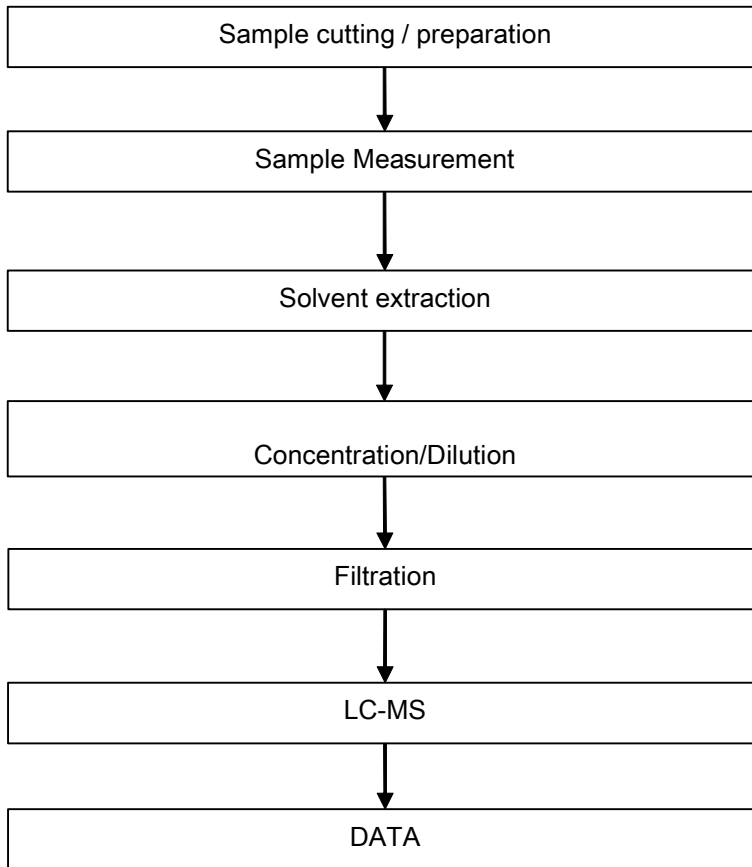
- 1) Name of the person who made testing: Bruce Xiao
- 2) Name of the person in charge of testing: Bella Wang



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PFOA / PFOS Testing Flow Chart

- 1) Name of the person who made testing: Zhihong Wang
- 2) Name of the person in charge of testing: Qiong Liu



Sample photo:



SGS authenticate the photo on original report only

*** End of Report ***