



CONSUMER PRODUCTS SERVICES DIVISION

BTL DIFFUSION

Technical Report: (9024)221-0125
Date Received: JUL 10, 2024

AUG 08, 2024
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BTL DIFFUSION
16, RUE ANATOLE MOUSSU - ZA MÉRÉ NORD EST 78490
MÉRÉ, FRANCE

Sample Description:	BABY BOX ROUND - RAINBOW TERRACOTTA/BABY BOX ROUND - LITTLE PRAIRIE/ BABY BOX SQUARE - PRETTY HEARTS/BABY BOX SQUARE - OLIVE TREE		
Vendor:	N/A	Sample Size:	N/A
Buyer:	N/A	Style No(s):	PA1305/PA1307/PA1401 /PA1403
Manufacturer:	N/A	SKN/SKU No.:	N/A
Labeled Age Grade:	NOT PRESENT	PO No.:	N/A
Appropriate Age Grade:	NOT REQUESTED	Ref #:	N/A
Client Specified Age Grade:	N/A	Assortment No.:	N/A
Tested Age Grade:	N/A	Country of Destination:	N/A
Country of Origin:	CHINA	Color:	N/A
UPC Code:	N/A		

EXECUTIVE SUMMARY:

The sample(s) MEETS the following requirement(s):

- As specified by client, to determine the Lead content in the submitted sample(s) in accordance with Consumer Product Safety Improvement Act of 2008(H.R. 4040) & H.R.2715 amendment Title 1 section 101- Children's products containing lead; lead paint rule.*
- As specified by client, to determine the Lead content in the submitted sample(s) in accordance with California "Proposition 65".*
- As specified by client, to determine the Total Lead content in the submitted sample(s) in accordance with Canada Consumer Product Safety Act : Consumer Products Containing Lead Regulations SOR/2018-83.*
- As specified by client, to determine the Total Lead content in the submitted sample(s) in accordance with Canada Surface coating materials regulations (SOR/2016-193&SOR/2022-122).*
- As specified by client, to determine the Total Lead content in the submitted sample(s) in accordance with 16 CFR 1303.*
- As specified by client, to determine the Total Lead content in the submitted sample(s) in accordance with ASTM F963-23 Standard Consumer Safety Specification for Toy Safety.*
- As specified by client, to determine the Cadmium content in the submitted sample(s) in accordance with Item 23 of Annex XVII of REACH Regulation (EC) 1907/2006.*
- As specified by client, to determine the PAHs content in the submitted sample(s) in accordance with Item 50 of Annex XVII of REACH Regulation (EC) 1907/2006 & amendment (EU) No 1272/2013.*
- As specified by client, to determine the Bisphenol A (BPA) content in the submitted sample(s).*

C/N QD/1010125

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EXECUTIVE SUMMARY:

The sample(s) MEETS the following requirement(s):

- As specified by client, to determine the DEHP 、 DBP 、 BBP 、 DINP 、 DIBP 、 DPENP 、 DHEXP and DCHP content in the submitted sample(s) in accordance with Consumer Product Safety Improvement Act of 2008(H.R. 4040) & H.R.2715 amendment & 16 CFR Part 1307-Prohibition of Children Toys and Child Care Articles Containing Specified Phthalates.*
- As specified by client, to determine the DBP 、 BBP 、 DEHP 、 DIDP 、 DNHP and DINP content in the submitted sample(s) in accordance with California "Proposition 65".*
- As specified by client, to determine the DEHP 、 DBP 、 BBP 、 DIBP 、 DINP 、 DIDP and DNOP content in the submitted sample(s) in accordance with Item 51&52 of Annex XVII of REACH Regulation (EC) 1907/2006.*
- As specified by client, to determine the Phthalates content in the submitted sample(s).*
- As specified by client, to determine the Short Chain Chlorinated Paraffin Content in the submitted sample(s) in accordance with the Persistent Organic Pollutants (POPs) Regulation (EU) 2019/1021.*

Note:

- 1.As specified by client, to determine the DEHP、 DBP、 BBP、 DINP、 DIDP and DNOP content in the submitted sample(s) in accordance with Canada Consumer Product Safety Act : Phthalates Regulations (SOR/2016-188) and As specified by client, to determine the DEHP content in the submitted sample(s) in accordance with Australia Competition and Consumer Act 2010 in children's products - Consumer Protection Notice No. 11 of 2011 and As specified by client, to determine the release of Nickel in the submitted sample(s) in accordance with Item 27 of Annex XVII of REACH Regulation (EC) 1907/2006 were not applicable.
- 2.With the client's prior consent, * was subcontracted test item.



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BVCPS (SHANGHAI)-QINGDAO BRANCH CONTACT INFORMATION FOR THIS REPORT

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**BUREAU VERITAS
CONSUMER PRODUCTS SERVICE DIVISION (SHANGHAI)-QINGDAO
BRANCH**

A handwritten signature in black ink that reads 'Anderson Zhang'.

ANDERSON ZHANG
MANAGER- HARDLINE & TOY OPERATION



RESULTS:

Specimen Description:

No.	Test part(s) name
1	Pink/white coating on metal
2	Green/white coating on metal
3	Beige/black coating on metal
4	Multi-color coating on metal
5	Transparent varnish on metal
6	Silvery metal, cover(square)
7	Silvery metal, body(square)
8	Silvery metal, cover(round)
9	Silvery metal, body(round)



RESULTS:

Results:

**(1) Total lead content - Consumer Product Safety Improvement Act of 2008(H.R. 4040) & H.R.2715 amendment
 Title 1 section 101**

Total Lead (Pb) Content in Surface Coating

Test Method: CPSC-CH-E1003-09.1

Test Instrument: Atomic Absorption Spectrophotometer (AAS)

Test item(s)	Unit	MDL	Limit	Result(s)	
				1+2+3	4+5
Lead(Pb)	mg/kg	10	90	N.D.	N.D.

Total Lead (Pb) Content in Non-Surface Coating Materials (Substrate)

Test Method: CPSC-CH-E1001-08.3

Test Instrument: Atomic Absorption Spectrophotometer (AAS)

Test item(s)	Unit	MDL	Limit	Result(s)	
				6+7	8+9
Lead(Pb)	mg/kg	10	100	N.D.	N.D.

(2) Total lead content - California "Proposition 65"

Total Lead (Pb) Content in Surface Coating

Test Method: CPSC-CH-E1003-09.1

Test Instrument: Atomic Absorption Spectrophotometer (AAS)

Test item(s)	Unit	MDL	Limit	Result(s)	
				1+2+3	4+5
Lead(Pb)	mg/kg	10	90	N.D.	N.D.

Total Lead (Pb) Content in Non-Surface Coating Materials (Substrate)

Test Method: CPSC-CH-E1001-08.3

Test Instrument: Atomic Absorption Spectrophotometer (AAS)

Test item(s)	Unit	MDL	Limit	Result(s)	
				6+7	8+9
Lead(Pb)	mg/kg	10	100	N.D.	N.D.

(3) Total Lead content - Consumer Products Containing Lead Regulations SOR/2018-83

Test method: With reference to Method C02.2.2:2020& C02.4:2022



RESULTS:

Test Instrument: Atomic Absorption Spectrophotometer (AAS)

Test item(s)	Unit	MDL	Limit	Result(s)			
				1+2+3	4+5	6+7	8+9
Total Lead(Pb)	mg/kg	10	90	N.D.	N.D.	N.D.	N.D.

(4) Total Lead content - Canada Surface coating materials regulations(SOR/2016-193&SOR/2022-122)

Test Method: With reference to Method C02.2.2:2020

Test Instrument: Atomic Absorption Spectrophotometer (AAS)

Test item(s)	Unit	MDL	Limit	Result(s)	
				1+2+3	4+5
Lead(Pb)	mg/kg	10	90	N.D.	N.D.

(5) Total lead content - 16 CFR 1303

Total Lead (Pb) Content in Surface Coating

Test Method: CPSC-CH-E1003-09.1

Test Instrument: Atomic Absorption Spectrophotometer (AAS)

Test item(s)	Unit	MDL	Limit	Result(s)	
				1+2+3	4+5
Lead(Pb)	mg/kg	10	90	N.D.	N.D.

(6) Total lead content - ASTM F963-23 Standard Consumer Safety Specification for Toy Safety

Total Lead (Pb) Content in Surface Coating

Test Method: CPSC-CH-E1003-09.1

Test Instrument: Atomic Absorption Spectrophotometer (AAS)

Test item(s)	Unit	MDL	Limit	Result(s)	
				1+2+3	4+5
Lead(Pb)	mg/kg	10	90	N.D.	N.D.

Total Lead (Pb) Content in Non-Surface Coating Materials (Substrate)

Test Method: CPSC-CH-E1001-08.3

Test Instrument: Atomic Absorption Spectrophotometer (AAS)

Test item(s)	Unit	MDL	Limit	Result(s)



RESULTS:

				6+7	8+9
Lead(Pb)	mg/kg	10	100	N.D.	N.D.

(7) Total Cadmium content- Item 23 of Annex XVII of REACH Regulation (EC) 1907/2006

Test Method: IEC 62321-5: 2013

Test Instrument: Atomic Absorption Spectrophotometer (AAS)

Test item(s)	Unit	MDL	Limit	Result(s)	
				1+2+3	4+5
Cadmium(Cd)	mg/kg	5	Refer to Remark	N.D.	N.D.

Remark:

Category	Limit (mg/kg)
Paints with code[3208]and [3209]	100
Paints with code[3208]and [3209] with a zinc content exceeding 10% by weight of the paint	1000
Painted article	1000
Plastic	100
Metal parts of jewelry & hair accessories	100



RESULTS:

(8) PAHs content- Item 50 of Annex XVII of REACH Regulation (EC) 1907/2006 & amendment (EU) No 1272/2013.

Test Method: With reference to AfPS-GS-2019-01: PAK

Test Instrument: Gas Chromatography-Mass Spectrometer (GC-MS)

No.	Test item(s)	CAS No	Unit	MDL	Result(s)	
					1+2+3	4+5
1	Benzo (a)anthracene (BaA)	56-55-3	mg/kg	0.2	N.D.	N.D.
2	Chrysene (CHR)	218-01-9	mg/kg	0.2	N.D.	N.D.
3	Benzo (b) fluoranthene (BbFA)	205-99-2	mg/kg	0.2	N.D.	N.D.
4	Benzo (k) fluoranthene (BkFA)	207-08-9	mg/kg	0.2	N.D.	N.D.
5	Benzo (j) fluoranthene (BjFA)	205-82-3	mg/kg	0.2	N.D.	N.D.
6	Benzo (e) pyrene (BeP)	192-97-2	mg/kg	0.2	N.D.	N.D.
7	Benzo (a) pyrene (BaP)	50-32-8	mg/kg	0.2	N.D.	N.D.
8	Dibenzo (a,h) anthracene (DBAhA)	53-70-3	mg/kg	0.2	N.D.	N.D.



RESULTS:

Remark:

(1) (EU) No 1272/2013 amending Item No 50 of Annex XVII of REACH Regulation (EC) 1907/2006

Parameter (mg/kg)	Category 1	Category 2
	Articles come into direct as well as prolonged or short-term repetitive contact with the human skin or the oral cavity, under normal or reasonably foreseeable conditions of use Such articles include amongst others: - sport equipment such as bicycles, golf clubs, racquets. - household utensils, trolleys, walking frames - tools for domestic use - clothing, footwear, gloves and sportswear - watch-straps, wrist-bands, masks, head-bands	Toys, including activity toys, and childcare articles, that come into direct as well as prolonged or short-term repetitive contact with the human skin or the oral cavity, under normal or reasonably foreseeable conditions of use,
Benzo[a]pyrene	<1	<0.5
Benzo[e]pyrene	<1	<0.5
Benzo[a]anthracene	<1	<0.5
Benzo[b]fluoranthene	<1	<0.5
Benzo[j]fluoranthene	<1	<0.5
Benzo[k]fluoranthene	<1	<0.5
Chrysene	<1	<0.5
Dibenzo[a,h]anthracene	<1	<0.5

- The PAHs limit is Category 1

(9) Bisphenol A (BPA) content

Test Method: In-house Method

Test Instrument: High Performance Liquid Chromatography (HPLC)

Test item(s)	Unit	MDL	Client Limit	Result(s)	
				1+2+3	4+5
Bisphenol A (BPA)	mg/kg	0.1	0.1	N.D.	N.D.



RESULTS:

(10) Phthalates content- Consumer Product Safety Improvement Act of 2008(H.R. 4040) & H.R.2715 amendment & 16 CFR Part 1307-Prohibition of Children Toys and Child Care Articles Containing Specified Phthalates.

Test Method: CPSC-CH-C1001-09.4

Test Instrument: Gas Chromatography-Mass Spectrometer (GC-MS)

Test item(s)	CAS No.	Unit	MDL	Limit	Result(s)	
					1+2+3	4+5
Bis (2-ethylhexyl) phthalate (DEHP)	117-81-7	mg/kg	50	1000	N.D.	N.D.
Dibutyl phthalate (DBP)	84-74-2	mg/kg	50	1000	N.D.	N.D.
Benzyl butyl phthalate (BBP)	85-68-7	mg/kg	50	1000	N.D.	N.D.
Di-iso-nonyl phthalate (DINP)	28553-12-0 68515-48-0	mg/kg	100	1000	N.D.	N.D.
Diisobutyl phthalate (DIBP)	84-69-5	mg/kg	50	1000	N.D.	N.D.
Di-n-pentyl Phthalate (DPENP)	131-18-0	mg/kg	50	1000	N.D.	N.D.
Di-n-hexyl Phthalate (DHEXP)	84-75-3	mg/kg	50	1000	N.D.	N.D.
Dicyclohexyl Phthalate (DCHP)	84-61-7	mg/kg	50	1000	N.D.	N.D.



RESULTS:

(11) Phthalates content- California "Proposition 65".

Test Method: CPSC-CH-C1001-09.4

Test Instrument: Gas Chromatography - Mass Spectrometer (GC-MS)

Test item(s)	Unit	MDL	Limit	Result(s)	
				1+2+3	4+5
Bis (2-ethylhexyl) phthalate (DEHP)	mg/kg	50	1000	N.D.	N.D.
Dibutyl phthalate (DBP)	mg/kg	50	1000	N.D.	N.D.
Benzyl butyl phthalate (BBP)	mg/kg	50	1000	N.D.	N.D.
Di-n-hexyl phthalate (DNHP)	mg/kg	50	1000	N.D.	N.D.
Diisodecyl phthalate (DIDP)	mg/kg	100	1000	N.D.	N.D.
Di-iso-nonyl phthalate (DINP)	mg/kg	100	1000	N.D.	N.D.

(12) Phthalates content- Item 51 & 52 of Annex XVII of REACH Regulation (EC) 1907/2006

Test Method: With reference to EN 14372:2004(E)

Test Instrument: Gas Chromatography-Mass Spectrometer (GC-MS)

Test item(s)	Unit	MDL	Limit	Result(s)	
				1+2+3	4+5
Bis-(2-ethylhexyl)Phthalate (DEHP)	mg/kg	50	1000	N.D.	N.D.
Dibutyl Phthalate (DBP)	mg/kg	50	1000	N.D.	N.D.
Benzylbutyl Phthalate (BBP)	mg/kg	50	1000	N.D.	N.D.
Diisobutyl phthalate (DIBP)	mg/kg	50	1000	N.D.	N.D.
Total(DEHP+ DBP+BBP+ DIBP)	mg/kg	/	1000	N.D.	N.D.
Diisononyl Phthalate (DINP)	mg/kg	100	/	N.D.	N.D.
Diisodecyl Phthalate (DIDP)	mg/kg	100	/	N.D.	N.D.
Di-n-octyl Phthalate (DNOP)	mg/kg	50	/	N.D.	N.D.
Total(DINP+ DIDP+DNOP)	mg/kg	/	1000	N.D.	N.D.



RESULTS:

(13) Phthalates content- Canada Consumer Product Safety Act : Phthalates Regulations (SOR/2016-188)

Test Method: Health Canada Method C34:2018

Test Instrument: Gas Chromatography-Mass Spectrometer (GC-MS)

Test item(s)	Unit	MDL	Limit	Result(s)
				-
Bis-(2-ethylhexyl)Phthalate (DEHP)	mg/kg	50	1000	N.A.
Dibutyl Phthalate (DBP)	mg/kg	50	1000	N.A.
Benzylbutyl Phthalate (BBP)	mg/kg	50	1000	N.A.
Di-n-octyl Phthalate (DNOP)	mg/kg	50	1000	N.A.
Diisononyl Phthalate (DINP)	mg/kg	100	1000	N.A.
Diisodecyl Phthalate (DIDP)	mg/kg	100	1000	N.A.

Note: No PVC materials presented on the received sample(s). Therefore, the phthalates content analysis of PVC materials according to Canada Consumer Product Safety Act, Phthalate Regulations, SOR/2016-188, was not conducted.

(14) Phthalates content- Australia Competition and Consumer Act 2010 in children's products - Consumer Protection Notice No. 11 of 2011

Test Method: With reference to EN 14372:2004

Test Instrument: Gas Chromatography-Mass Spectrometer (GC-MS)

Test item(s)	CAS No.	Unit	MDL	Limit	Result(s)
					-
Bis (2-ethylhexyl) phthalate (DEHP)	117-81-7	mg/kg	50	10000	N.A.

Note: No applicable component was present on the received sample(s). Therefore, the phthalates content analysis according to Australia Competition and Consumer Act 2010 in children's products with reference to the Consumer Protection Notice No. 11 of 2011, was not conducted.



RESULTS:

(15) Phthalates content

Test Method: With reference to CPSC-CH-C1001-09.4

Test Instrument: Gas Chromatography-Mass Spectrometer (GC-MS)

Test item(s)	CAS No.	Unit	MDL	Client Limit	Result(s)	
					1+2+3	4+5
Benzyl butyl phthalate(BBP)	85-68-7	mg/kg	50	1000	N.D.	N.D.
Dibutyl phthalate (DBP)	84-74-2	mg/kg	50	1000	N.D.	N.D.
Di-2-ethylhexyl phthalate (DEHP)	117-81-7	mg/kg	50	1000	N.D.	N.D.
Diisobutyl phthalate(DIBP)	84-69-5	mg/kg	50	1000	N.D.	N.D.
Di(2-methoxyethy) phthalate (DMEP)	117-82-8	mg/kg	50	1000	N.D.	N.D.
1,2-Benzenedicarboxylic acid, dipentylester, branched and linear(DPP)	131-18-0	mg/kg	50	1000	N.D.	N.D.
1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	68515-50-4	mg/kg	50	1000	N.D.	N.D.
n-Pentyl –isopentylphthalate(nPiPP)	776297-69-9	mg/kg	50	1000	N.D.	N.D.
Diisopentyl phthalate(DIPP)	605-50-5	mg/kg	50	1000	N.D.	N.D.
1,2-Benzenedicarboxylic acid, dipentylester branched and linear	84777-06-0	mg/kg	50	1000	N.D.	N.D.
1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)	71888-89-6	mg/kg	50	1000	N.D.	N.D.
1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNUP)	68515-42-4	mg/kg	50	1000	N.D.	N.D.
Di-n-hexyl Phthalate(DHP)	84-75-3	mg/kg	50	1000	N.D.	N.D.
1,2-benzenedicarboxylic acid, diC6-10-alkyl esters or mixed decyl and hexyl and octyl diesters with ≥0.3% of dihexyl phthalate (EC No.201-559-5)	68515-51-5 68648-93-1	mg/kg	50	1000	N.D.	N.D.
Di-iso-nonyl phthalate (DINP)	28553-12-0	mg/kg	50	1000	N.D.	N.D.
Diisodecyl Phthalate (DIDP)	26761-40-0	mg/kg	50	1000	N.D.	N.D.
Di-n-octyl Phthalate(DNOP)	117-84-0	mg/kg	50	1000	N.D.	N.D.



RESULTS:

Test item(s)	CAS No.	Unit	MDL	Client Limit	Result(s)	
					1+2+3	4+5
Diethyl Phthalate(DEP)	84-66-2	mg/kg	50	1000	N.D.	N.D.
Dicyclohexyl phthalate (DCHP)	84-61-7	mg/kg	50	1000	N.D.	N.D.

(16) Short Chain Chlorinated Paraffin content - the Persistent Organic Pollutants (POPs) Regulation (EU) 2019/1021.

Test Method: In-house method

Test Instrument: Gas Chromatography-Mass Spectrometer (GC-MS)

Test item(s)	Unit	MDL	Limit	Result(s)	
				1+2+3	4+5
Short Chain Chlorinated Paraffin (SCCP)	mg/kg	50	1500	N.D.	N.D.

(17) Release of Nickel - Item 27 of Annex XVII of REACH Regulation (EC) 1907/2006

Test Method: EN 12472:2020&EN 1811:2023

Test Instrument: Inductively Coupled Plasma Optical Emission Spectrometer(ICP-OES)

Item	Sample	Sample area (cm ²)	Volume of Test Solution (mL)	MDL (µg·cm ⁻² ·week ⁻¹)	Result(s) (µg·cm ⁻² ·week ⁻¹)	Conclusion
Nickel (Ni) release	/	/	/	0.05	/	N.A.
	/	/	/		/	N.A.
	/	/	/		/	N.A.

Remark:

Concentration measured (µg·cm ⁻² ·week ⁻¹)	Limit (µg·cm ⁻² ·week ⁻¹)	According to EN 1811-2023 (using 46% uncertainty for evaluation) (µg·cm ⁻² ·week ⁻¹)	
Inserted into pierced parts of the human body	0.2	< 0.35	Pass
		≥ 0.35	Fail
Come into direct and prolonged contact with the skin	0.5	≤ 0.88	Pass
		> 0.88	Fail

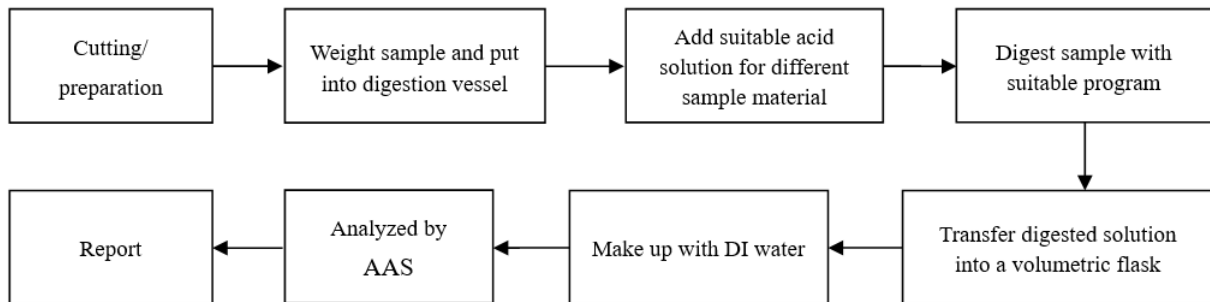
Note:

- µg·cm⁻²·week⁻¹= microgram per square centimeter per week
- mg/kg=milligram per kilogram
- N.D. =Not Detected (<MDL)
- N.A. = Not Applicable
- MDL=Method Detection Limit
- As specified by client, the mixed testing were conducted.

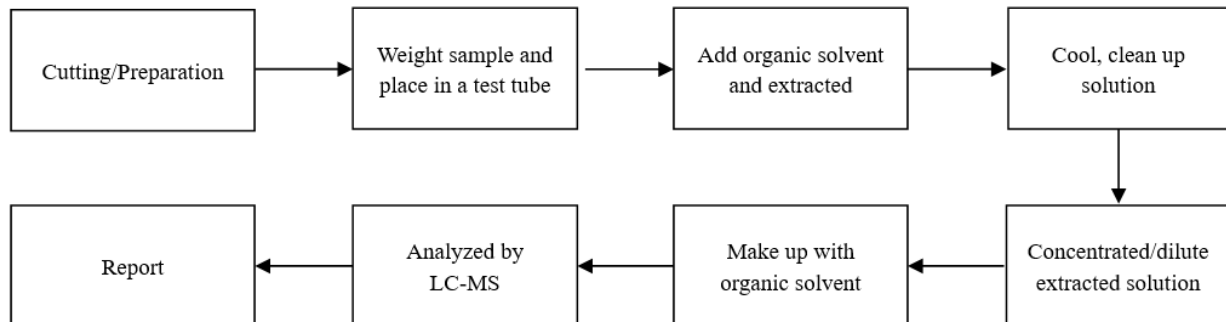
RESULTS:

Appendix

1. Test flowchart for Pb/Cd content:

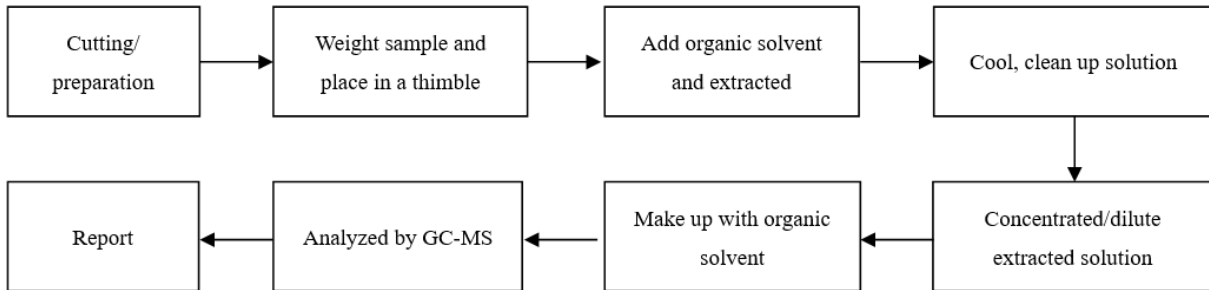


2. Test flowchart for BPA content:

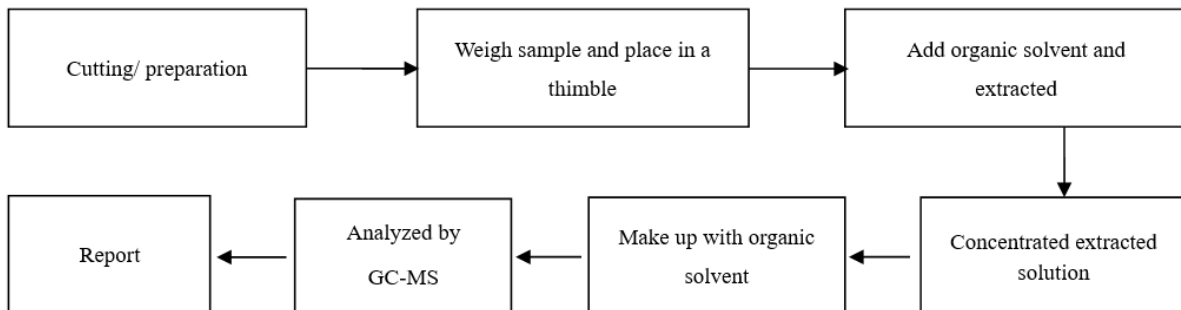


RESULTS:

3. Test flowchart for Phthalates/ PAHs content:



4. Test flowchart for SCCP content:



RESULTS:

EXHIBIT # 1



End of report