

TEST REPORT

AB-0505-T

72201820073

22.07.2020

LAB LOCATION: TURKEY
LAB NO. : (7220)182-0073
SERVICE TYPE: Regular
DATE IN: June 30th, 2020
RECONFIRMATION DATE: July 10th, 2020
DATE OUT: July 22th, 2020

MATERIAL SUBMITTED : BIGPOINT KIRTASIYE SAN. ve TİC. LTD. ŞTİ.
(Attn: info@bigpoint.com.tr)
SUPPLIER REFERENCE : BP757-12, BP757-12B
STYLE NO : /
BUYER : BIGPOINT KIRTASIYE SAN. ve TİC. LTD. ŞTİ.
MANUFACTURER :
COUNTRY OF ORIGIN :
SAMPLE DESCRIPTION : **Sample A: 12 color Watercolor**
COLOR : /
SUBMITTED CARE : /
INSTRUCTION : /
LOT NO : /
LABEL AGE GRADE : 36 M+
TESTED AGE GRADE : 36 M+
GENERAL CONCLUSION : PASS

SUMMARY OF TEST RESULTS

TEST REQUIRED	Sample A
EN 71-1:2014+A1:2018 Physical and Mechanical Properties*	P
EN 71:2:2011+A1:2014 Flammability*	P
EN 71 Part 3: 2019 Migration of Certain Elements*	P
Migration of Certain Elements Chromium III and Chromium VI Confirmation	P
Phthalates*	P
Total Cadmium Content*	P
Polynuclear Aromatic Hydrocarbons (PAHs)*	P
Azo Dyes*	See Note 1
*TÜRKAK ACCREDITED TESTS	

P:PASS

F:FAIL

REMARK 1*= The reported expanded uncertainty is based on the standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95%. Unless otherwise is specified, the uncertainty of measurement has not been taken into account when assessing pass/fail of the sample against the requirements of the standard. In case consideration of measurement uncertainties when assessing pass/ fail limits, some results may be in borderline.

The test result, the uncertainties (if applicable) with confidence probability are given on the following pages which are part of this report.

C/N GY/EY

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REMARK 1: “Migration of Certain Elements Chromium III and Chromium VI Confirmation*” analysis has been performed by subcontracted laboratory.

NOTE 1: Azo Dyes test for “I017 (brown brush)” is omitted. According to EN/14362 “Below 0.2 g of material is omitted.” The weight of the component is 0.04 g.

EXECUTIVE SUMMARY: Only vendor selected tests have been performed and submitted samples have been rated as “PASS”.

**Bureau Veritas Consumer Products Services Turkey
BV CPS Test Lab. Ltd. Sti.**



Eylem Yaldizli
Senior Client Team Lead -Hardline



Yagiz Barin
Hardline & Pharma Lab. Manager

-Photo of the Submitted Sample-

Sample A



TEST RESULTS

EN 71-1: 2014 + A1:2018 PHYSICAL AND MECHANICAL PROPERTIES OF TOYS

Clause	Clause Description	Test Method	RESULT
4	General Requirements	-	(A)
4.1	Material Cleanliness	-	Pass
4.7 & 7.6	Edges	8.11	Pass
4.8 & 7.6	Points And Metallic Wires	8.12, 8.13	Pass
	WARNINGS, INSTRUCTIONS FOR USE		
7	CE Mark	-	Present
7	Importer Name And Address	-	Present
7	Product Identification	-	Present
7.1	General	-	Pass
7.2	Toys not intended for children under 36 months		Pass

***Remark:** The methods indicated with “#” are not accredited.

EN 71-2:2011 + A1: 2014 FLAMMABILITY OF TOYS

Clause	Clause Description	RESULT (A)
4.1	General requirements	PASS

Test Item	Sample Description
I001	Transparent Plastic Box
I002	White Printed Transparent Plastic Box
I003	Black Plastic Box
I004	Black Dye
I005	Dark Brown Dye
I006	Light Brown Dye
I007	Green Dye
I008	Dark Green Dye
I009	Navy Dye
I010	Purple Dye
I011	Dark Pink Dye
I012	Red Dye
I013	Orange Dye
I014	Yellow Dye
I015	White Dye
I016	Silver Plastic Of Brush
I017	Brown Brush

TEST RESULTS

Total Cadmium Content*

Test Method : In House Test Method CPSD-AN-00004-MTHD

Parameter	Unit	Result	Requirement by Client
-	-	I002+I003+I016	-
Total Cadmium (Cd)	ppm	N.D.	100
Conclusion	-	PASS	-

Parameter	Unit	Result	Requirement by Client
-	-	I004+I005+I006	-
Total Cadmium (Cd)	ppm	N.D.	100
Conclusion	-	PASS	-

Parameter	Unit	Result	Requirement by Client
-	-	I007+I008+I009	-
Total Cadmium (Cd)	ppm	N.D.	100
Conclusion	-	PASS	-

Parameter	Unit	Result	Requirement by Client
-	-	I010+I011+I012	-
Total Cadmium (Cd)	ppm	N.D.	100
Conclusion	-	PASS	-

Parameter	Unit	Result	Requirement by Client
-	-	I013+I014+I015	-
Total Cadmium (Cd)	ppm	N.D.	100
Conclusion	-	PASS	-

Note / Key :

ND = Not detected
mg/kg = milligram(s) per kilogram = ppm = part(s) per million
10 000 mg/kg = 1 %
Detection Limit (mg/kg) : 10

“>” = Greater than
% = percent

No. = Number(s)

TEST RESULTS

MIGRATION OF CERTAIN ELEMENTS

Test Method: European Standard EN 71 Part 3: 2019, Section 8.

See Soluble Element (Parameter) and its corresponding Maximum Allowable Limit (Req.) in Result Table	Type I	Dry, brittle, powder-like or pliable toy material
	Type II	Liquid or sticky toy material
	Type III	Scraped-off toy material

	Unit	Req.	Result		
Test Item(s)	-	-	I001	I002	I003
Type	-	III	III	III	III
Parameter	-	-	-	-	-
Aluminium (Al)	mg/kg	70000	ND	ND	ND
Antimony (Sb)	mg/kg	560	ND	ND	ND
Arsenic (As)	mg/kg	47	ND	ND	ND
Barium (Ba)	mg/kg	18750	ND	ND	ND
Boron (B)	mg/kg	15000	ND	ND	ND
Cadmium (Cd)	mg/kg	17	ND	ND	ND
Chromium III (Cr III)	mg/kg	460	ND	ND	ND
Chromium VI (Cr VI)	mg/kg	0.053	ND	ND	ND
Cobalt (Co)	mg/kg	130	ND	ND	ND
Copper (Cu)	mg/kg	7700	ND	ND	ND
Lead (Pb)	mg/kg	23	ND	ND	ND
Manganese (Mn)	mg/kg	15000	ND	ND	ND
Mercury (Hg)	mg/kg	94	ND	ND	ND
Nickel (Ni)	mg/kg	930	ND	ND	ND
Selenium (Se)	mg/kg	460	ND	ND	ND
Strontium (Sr)	mg/kg	56000	ND	ND	ND
Tin (Sn)	mg/kg	180000	ND	ND	ND
Organic tin	mg/kg	12	ND	ND	ND
Zinc (Zn)	mg/kg	46000	ND	5.3	ND
Conclusion	-	-	PASS	PASS	PASS

Note / Key :

ND = Not detected

NR = Not requested

mg/kg = milligram(s) per kilogram = ppm = part(s) per million

[] = Detection Limit by test method with reference to EN 71 Part 3: 2019, Annex F

Detection Limit (mg/kg) :

For Type I and Type II - Each (As, Cd, Cr III and Hg) : 0.15 ; Cr VI : 0.005 [0.002] ; Organic tin : 0.04 ;

Pb : 0.5 ; Each (Others) : 2

For Type III - Cr III : 0.15 ; Cr VI : 0.05 [0.002] ; Each (Others) : 2

“>” = Greater than

g = gram(s)

Req. = Requirement

INCON: Inconclusive

Remark :

- Result(s) of organic tin was (were) calculated by assuming the soluble tin content was wholly contributed from tributyltin (TBT) cation unless further specified.
- The European Commission amended the maximum allowable limit(s) of migratable lead of European Parliament and Council Directive 2009/48/EC in particular regarding to Annex II, Part III, Point 13. See details in Comment.

Proposals to amendment of European Parliament and Council Directive 2009/48/EC, Annex II, Part III, Point 13 :			
-	Type I	Type II	Type III
Element(s)	Aluminium (Al)	Aluminium (Al)	Aluminium (Al)
Current	5 625 mg/kg	1 406 mg/kg	70 000 mg/kg
Proposed^[b]	2 250 mg/kg	560 mg/kg	28 130 mg/kg
[a] denotes as these maximum allowable limits apply from May 20, 2021 according to European Commission Directive (EU) 2019/1922 of 18 November 2019 amending, for the purposes of adaptation to technical and scientific developments, point 13 of part III of Annex II to Directive 2009/48/EC of the European Parliament and of the Council on the Safety of Toys, as regards aluminium.			

TEST RESULTS

MIGRATION OF CERTAIN ELEMENTS

Test Method: European Standard EN 71 Part 3: 2019, Section 8.

See Soluble Element (Parameter) and its corresponding Maximum Allowable Limit (Req.) in Result Table	Type I	Dry, brittle, powder-like or pliable toy material
	Type II	Liquid or sticky toy material
	Type III	Scraped-off toy material

Note / Key :

	Unit	Req.	Result	
Test Item(s)	-	-	I016	I017
Type	-	III	III	III
Parameter	-	-	-	-
Aluminium (Al)	mg/kg	70000	502.0	13.5
Antimony (Sb)	mg/kg	560	ND	ND
Arsenic (As)	mg/kg	47	ND	ND
Barium (Ba)	mg/kg	18750	ND	2.0
Boron (B)	mg/kg	15000	ND	ND
Cadmium (Cd)	mg/kg	17	ND	ND
Chromium III (Cr III)	mg/kg	460	0.06	0.10
Chromium VI (Cr VI)	mg/kg	0.053	ND	ND
Cobalt (Co)	mg/kg	130	ND	ND
Copper (Cu)	mg/kg	7700	ND	ND
Lead (Pb)	mg/kg	23	ND	ND
Manganese (Mn)	mg/kg	15000	5.0	7.3
Mercury (Hg)	mg/kg	94	ND	ND
Nickel (Ni)	mg/kg	930	ND	ND
Selenium (Se)	mg/kg	460	ND	ND
Strontium (Sr)	mg/kg	56000	ND	6.4
Tin (Sn)	mg/kg	180000	ND	ND
Organic tin	mg/kg	12	ND	ND
Zinc (Zn)	mg/kg	46000	3.2	22.2
Conclusion	-	-	PASS	PASS

ND = Not detected

">" = Greater than

Req. = Requirement

NR = Not requested

g = gram(s)

INCON: Inconclusive

mg/kg = milligram(s) per kilogram = ppm = part(s) per million

[] = Detection Limit by test method with reference to EN 71 Part 3: 2019, Annex F

Detection Limit (mg/kg) :

For Type I and Type II - Each (As, Cd, Cr III and Hg) : 0.15 ; Cr VI : 0.005 [0.002] ; Organic tin : 0.04 ;

Pb : 0.5 ; Each (Others) : 2

For Type III - Cr III : 0.15 ; Cr VI : 0.05 [0.002] ; Each (Others) : 2

Remark :

- Result(s) of organic tin was (were) calculated by assuming the soluble tin content was wholly contributed from tributyltin (TBT) cation unless further specified.
- The European Commission amended the maximum allowable limit(s) of migratable lead of European Parliament and Council Directive 2009/48/EC in particular regarding to Annex II, Part III, Point 13. See details in Comment.

Proposals to amendment of European Parliament and Council Directive 2009/48/EC, Annex II, Part III, Point 13 :			
-	Type I	Type II	Type III
Element(s)	Aluminium (Al)	Aluminium (Al)	Aluminium (Al)
Current	5 625 mg/kg	1 406 mg/kg	70 000 mg/kg
Proposed^[b]	2 250 mg/kg	560 mg/kg	28 130 mg/kg
[a] denotes as these maximum allowable limits apply from May 20, 2021 according to European Commission Directive (EU) 2019/1922 of 18 November 2019 amending, for the purposes of adaptation to technical and scientific developments, point 13 of part III of Annex II to Directive 2009/48/EC of the European Parliament and of the Council on the Safety of Toys, as regards aluminium.			

TEST RESULTS

MIGRATION OF CERTAIN ELEMENTS

Test Method: European Standard EN 71 Part 3: 2019, Section 8.

See Soluble Element (Parameter) and its corresponding Maximum Allowable Limit (Req.) in Result Table	Type I	Dry, brittle, powder-like or pliable toy material
	Type II	Liquid or sticky toy material
	Type III	Scraped-off toy material

Note / Key :

	Unit	Req.	Result						
Test Item(s)	-	-	I004	I005	I006	I007	I008	I009	I010
Type	-	I	I	I	I	I	I	I	I
Parameter	-	-	-	-	-	-	-	-	-
Aluminium (Al)	mg/kg	5625	30.3	39.3	24.5	52.5	31.9	34.5	140.3
Antimony (Sb)	mg/kg	45	ND	ND	ND	ND	ND	ND	ND
Arsenic (As)	mg/kg	3.8	ND	ND	ND	ND	ND	ND	ND
Barium (Ba)	mg/kg	1500	ND	ND	2.4	2.1	ND	ND	ND
Boron (B)	mg/kg	1200	ND	ND	ND	ND	ND	ND	ND
Cadmium (Cd)	mg/kg	1.3	ND	ND	ND	ND	ND	ND	ND
Chromium III (Cr III)	mg/kg	37.5	0.271	0.309	0.182	0.344	0.202	0.290	0.406
Chromium VI (Cr VI)	mg/kg	0.02	ND	ND	ND	ND	ND	ND	ND
Cobalt (Co)	mg/kg	10.5	ND	ND	ND	ND	ND	ND	ND
Copper (Cu)	mg/kg	622.5	ND	ND	ND	ND	ND	ND	ND
Lead (Pb)	mg/kg	2	ND	ND	ND	ND	ND	ND	ND
Manganese (Mn)	mg/kg	1200	2.5	3.5	ND	3.4	2.2	2.4	3.2
Mercury (Hg)	mg/kg	7.5	ND	ND	ND	ND	ND	ND	ND
Nickel (Ni)	mg/kg	75	ND	ND	ND	ND	ND	ND	ND
Selenium (Se)	mg/kg	37.5	ND	ND	ND	ND	ND	ND	ND
Strontium (Sr)	mg/kg	4500	24.0	24.6	16.1	30.7	19.9	24.2	34.6
Tin (Sn)	mg/kg	15000	ND	ND	ND	ND	ND	ND	ND
Organic tin	mg/kg	0.9	ND	ND	ND	ND	ND	ND	ND
Zinc (Zn)	mg/kg	3750	ND	ND	ND	ND	ND	ND	ND
Conclusion	-	-	PASS	PASS	PASS	PASS	PASS	PASS	PASS

ND = Not detected

">" = Greater than

Req. = Requirement

NR = Not requested

g = gram(s)

INCON: Inconclusive

mg/kg = milligram(s) per kilogram = ppm = part(s) per million

[] = Detection Limit by test method with reference to EN 71 Part 3: 2019, Annex F

Detection Limit (mg/kg) :

For Type I and Type II - Each (As, Cd, Cr III and Hg) : 0.15 ; Cr VI : 0.005 [0.002] ; Organic tin : 0.04 ;

Pb : 0.5 ; Each (Others) : 2

For Type III - Cr III : 0.15 ; Cr VI : 0.05 [0.002] ; Each (Others) : 2

Remark :

- Result(s) of organic tin was (were) calculated by assuming the soluble tin content was wholly contributed from tributyltin (TBT) cation unless further specified.
- The European Commission amended the maximum allowable limit(s) of migratable lead of European Parliament and Council Directive 2009/48/EC in particular regarding to Annex II, Part III, Point 13. See details in Comment.

Proposals to amendment of European Parliament and Council Directive 2009/48/EC, Annex II, Part III, Point 13 :			
-	Type I	Type II	Type III
Element(s)	Aluminium (Al)	Aluminium (Al)	Aluminium (Al)
Current	5 625 mg/kg	1 406 mg/kg	70 000 mg/kg
Proposed^[b]	2 250 mg/kg	560 mg/kg	28 130 mg/kg
[a] denotes as these maximum allowable limits apply from May 20, 2021 according to European Commission Directive (EU) 2019/1922 of 18 November 2019 amending, for the purposes of adaptation to technical and scientific developments, point 13 of part III of Annex II to Directive 2009/48/EC of the European Parliament and of the Council on the Safety of Toys, as regards aluminium.			

TEST RESULTS

MIGRATION OF CERTAIN ELEMENTS

Test Method: European Standard EN 71 Part 3: 2019, Section 8.

See Soluble Element (Parameter) and its corresponding Maximum Allowable Limit (Req.) in Result Table	Type I	Dry, brittle, powder-like or pliable toy material
	Type II	Liquid or sticky toy material
	Type III	Scraped-off toy material

Note / Key :

	Unit	Req.	Result				
Test Item(s)	-	-	I011	I012	I013	I014	I015
Type	-	I	I	I	I	I	I
Parameter	-	-	-	-	-	-	-
Aluminium (Al)	mg/kg	5625	35.7	12.5	23.3	10.6	15.6
Antimony (Sb)	mg/kg	45	ND	ND	ND	ND	ND
Arsenic (As)	mg/kg	3.8	ND	ND	ND	ND	ND
Barium (Ba)	mg/kg	1500	8.5	ND	2.2	ND	ND
Boron (B)	mg/kg	1200	ND	ND	ND	ND	ND
Cadmium (Cd)	mg/kg	1.3	ND	ND	ND	ND	ND
Chromium III (Cr III)	mg/kg	37.5	0.503	0.092	0.179	0.100	0.108
Chromium VI (Cr VI)	mg/kg	0.02	ND	ND	ND	ND	ND
Cobalt (Co)	mg/kg	10.5	ND	ND	ND	ND	ND
Copper (Cu)	mg/kg	622.5	ND	ND	ND	ND	ND
Lead (Pb)	mg/kg	2	ND	ND	ND	ND	ND
Manganese (Mn)	mg/kg	1200	5.1	ND	ND	ND	ND
Mercury (Hg)	mg/kg	7.5	ND	ND	ND	ND	ND
Nickel (Ni)	mg/kg	75	ND	ND	ND	ND	ND
Selenium (Se)	mg/kg	37.5	ND	ND	ND	ND	ND
Strontium (Sr)	mg/kg	4500	63.0	9.7	14.6	10.1	11.8
Tin (Sn)	mg/kg	15000	ND	ND	ND	ND	ND
Organic tin	mg/kg	0.9	ND	ND	ND	ND	ND
Zinc (Zn)	mg/kg	3750	ND	ND	ND	ND	ND
Conclusion	-	-	PASS	PASS	PASS	PASS	PASS

ND = Not detected

">" = Greater than

Req. = Requirement

NR = Not requested

g = gram(s)

INCON: Inconclusive

mg/kg = milligram(s) per kilogram = ppm = part(s) per million

[] = Detection Limit by test method with reference to EN 71 Part 3: 2019, Annex F

Detection Limit (mg/kg) :

For Type I and Type II - Each (As, Cd, Cr III and Hg) : 0.15 ; Cr VI : 0.005 [0.002] ; Organic tin : 0.04 ;

Pb : 0.5 ; Each (Others) : 2

For Type III - Cr III : 0.15 ; Cr VI : 0.05 [0.002] ; Each (Others) : 2

Remark :

- Result(s) of organic tin was (were) calculated by assuming the soluble tin content was wholly contributed from tributyltin (TBT) cation unless further specified.
- The European Commission amended the maximum allowable limit(s) of migratable lead of European Parliament and Council Directive 2009/48/EC in particular regarding to Annex II, Part III, Point 13. See details in Comment.

Proposals to amendment of European Parliament and Council Directive 2009/48/EC, Annex II, Part III, Point 13 :			
-	Type I	Type II	Type III
Element(s)	Aluminium (Al)	Aluminium (Al)	Aluminium (Al)
Current	5 625 mg/kg	1 406 mg/kg	70 000 mg/kg
Proposed^[b]	2 250 mg/kg	560 mg/kg	28 130 mg/kg
[a] denotes as these maximum allowable limits apply from May 20, 2021 according to European Commission Directive (EU) 2019/1922 of 18 November 2019 amending, for the purposes of adaptation to technical and scientific developments, point 13 of part III of Annex II to Directive 2009/48/EC of the European Parliament and of the Council on the Safety of Toys, as regards aluminium.			

TEST RESULTS

CHROMIUM (VI) CONFIRMATION

Test Method : European Standard EN 71 Part 3: 2019, Section 8.

Parameter	Unit	Results			Limit
-	-	I004	I005	I006	0.02
Chromium (VI)	mg/kg	ND	ND	ND	
Conclusion	-	PASS	PASS	PASS	

Parameter	Unit	Results			Limit
-	-	I007	I008	I009	0.02
Chromium (VI)	mg/kg	ND	ND	ND	
Conclusion	-	PASS	PASS	PASS	

Parameter	Unit	Results			Limit
-	-	I010	I011	I012	0.02
Chromium (VI)	mg/kg	ND	ND	ND	
Conclusion	-	PASS	PASS	PASS	

Parameter	Unit	Results			Limit
-	-	I013	I014	I015	0.02
Chromium (VI)	mg/kg	ND	ND	ND	
Conclusion	-	PASS	PASS	PASS	

Parameter	Unit	Results			Limit
-	-	I016	I017	0.053	
Chromium (VI)	mg/kg	ND	ND		
Conclusion	-	PASS	PASS		

Note / Key :

ND = Not detected

mg/kg = milligram(s) per kilogram = ppm = part(s) per million

10 000 mg/kg = 1 %

Detection Limit (mg/kg) : 0.053

“>” = Greater than

% = percent

No. = Number(s)

TEST RESULTS

PHTHALATES*

Test Method : BV In-house Test Method CPSD-AN-00095-MTHD
Solvent extraction and analysis by Gas Chromatograph Mass Spectrometer (GC-MS)
or Liquid Chromatograph Mass Spectrometer (LC-MS).

Limit:	Sum of (DBP, BBP, DEHP) : Less than 1000 mg/kg (Sum) (0.1 % (Sum)) Sum of (DNOP, DIDP, DINP) : Less than 1000 mg/kg (Sum) (0.1 % (Sum))
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-	Results			Conclusion
Tested Item(s)	Detected Analytes	Conc.	Unit	
I002+I003+I016	DBP (Dibutylphthalate)	ND	mg/kg	-
	BBP (Butylbenzylphthalate)	ND	mg/kg	-
	DEHP (Di(2-ethylhexyl)-phthalate)	77	mg/kg	PASS
	Sum	77	mg/kg	PASS
	DNOP (Di-n-octylphthalate)	ND	mg/kg	-
	DIDP (Diisodecylphthalate)	ND	mg/kg	-
	DINP (Di-iso-nonylphthalate)	ND	mg/kg	-
	Sum	-	mg/kg	PASS
	Overall Conclusion	-	-	PASS

-	Results			Conclusion
Tested Item(s)	Detected Analytes	Conc.	Unit	
I004	DBP (Dibutylphthalate)	ND	mg/kg	-
	BBP (Butylbenzylphthalate)	ND	mg/kg	-
	DEHP (Di(2-ethylhexyl)-phthalate)	ND	mg/kg	-
	Sum	-	mg/kg	PASS
	DNOP (Di-n-octylphthalate)	ND	mg/kg	-
	DIDP (Diisodecylphthalate)	ND	mg/kg	-
	DINP (Di-iso-nonylphthalate)	ND	mg/kg	-
	Sum	-	mg/kg	PASS
	Overall Conclusion	-	-	PASS

-	Results			Conclusion
Tested Item(s)	Detected Analytes	Conc.	Unit	
I005	DBP (Dibutylphthalate)	ND	mg/kg	-
	BBP (Butylbenzylphthalate)	ND	mg/kg	-
	DEHP (Di(2-ethylhexyl)-phthalate)	ND	mg/kg	-
	Sum	-	mg/kg	PASS
	DNOP (Di-n-octylphthalate)	ND	mg/kg	-
	DIDP (Diisodecylphthalate)	ND	mg/kg	-
	DINP (Di-iso-nonylphthalate)	ND	mg/kg	-
	Sum	-	mg/kg	PASS
	Overall Conclusion	-	-	PASS

Remark1:

Note:

ND = Not detected

% = percent = 10000 mg/kg

Detection Limit (mg/kg): Each 50; Sum 150

">" = More than

mg/kg = milligram per kilogram

Conc. = Concentration

Remark2:

- The list of phthalates is summarized in table of Appendix

Remark3:

Recommended Max. limit specified by entries 51 and 52 of Regulation (EC) No 552/2009 amending Annex XVII of REACH Regulation (EC) No 1907/2006 (previously restricted under Directive 2005/84/EC)

TEST RESULTS

PHTHALATES*

Test Method : BV In-house Test Method CPSD-AN-00095-MTHD
Solvent extraction and analysis by Gas Chromatograph Mass Spectrometer (GC-MS)
or Liquid Chromatograph Mass Spectrometer (LC-MS).

Limit:	Sum of (DBP, BBP, DEHP) : Less than 1000 mg/kg (Sum) (0.1 % (Sum)) Sum of (DNOP, DIDP, DINP) : Less than 1000 mg/kg (Sum) (0.1 % (Sum))
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-	Results			Conclusion
Tested Item(s)	Detected Analytes	Conc.	Unit	
I006	DBP (Dibutylphthalate)	ND	mg/kg	-
	BBP (Butylbenzylphthalate)	ND	mg/kg	-
	DEHP (Di(2-ethylhexyl)-phthalate)	ND	mg/kg	-
	Sum	-	mg/kg	PASS
	DNOP (Di-n-octylphthalate)	ND	mg/kg	-
	DIDP (Diisodecylphthalate)	ND	mg/kg	-
	DINP (Di-iso-nonylphthalate)	ND	mg/kg	-
	Sum	-	mg/kg	PASS
	Overall Conclusion	-	-	PASS

-	Results			Conclusion
Tested Item(s)	Detected Analytes	Conc.	Unit	
I007	DBP (Dibutylphthalate)	ND	mg/kg	-
	BBP (Butylbenzylphthalate)	ND	mg/kg	-
	DEHP (Di(2-ethylhexyl)-phthalate)	ND	mg/kg	-
	Sum	-	mg/kg	PASS
	DNOP (Di-n-octylphthalate)	ND	mg/kg	-
	DIDP (Diisodecylphthalate)	ND	mg/kg	-
	DINP (Di-iso-nonylphthalate)	ND	mg/kg	-
	Sum	-	mg/kg	PASS
	Overall Conclusion	-	-	PASS

-	Results			Conclusion
Tested Item(s)	Detected Analytes	Conc.	Unit	
I008	DBP (Dibutylphthalate)	ND	mg/kg	-
	BBP (Butylbenzylphthalate)	ND	mg/kg	-
	DEHP (Di(2-ethylhexyl)-phthalate)	ND	mg/kg	-
	Sum	-	mg/kg	PASS
	DNOP (Di-n-octylphthalate)	ND	mg/kg	-
	DIDP (Diisodecylphthalate)	ND	mg/kg	-
	DINP (Di-iso-nonylphthalate)	ND	mg/kg	-
	Sum	-	mg/kg	PASS
	Overall Conclusion	-	-	PASS

Remark1:

Note:

ND = Not detected

% = percent = 10000 mg/kg

Detection Limit (mg/kg): Each 50; Sum 150

“>” = More than

mg/kg = milligram per kilogram

Conc. = Concentration

Remark2:

- The list of phthalates is summarized in table of Appendix

Remark3:

Recommended Max. limit specified by entries 51 and 52 of Regulation (EC) No 552/2009 amending Annex XVII of REACH Regulation (EC) No 1907/2006 (previously restricted under Directive 2005/84/EC)

TEST RESULTS

PHTHALATES*

Test Method : BV In-house Test Method CPSD-AN-00095-MTHD
Solvent extraction and analysis by Gas Chromatograph Mass Spectrometer (GC-MS)
or Liquid Chromatograph Mass Spectrometer (LC-MS).

Limit:	Sum of (DBP, BBP, DEHP) : Less than 1000 mg/kg (Sum) (0.1 % (Sum)) Sum of (DNOP, DIDP, DINP) : Less than 1000 mg/kg (Sum) (0.1 % (Sum))
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-	Results			Conclusion
Tested Item(s)	Detected Analytes	Conc.	Unit	
I009	DBP (Dibutylphthalate)	ND	mg/kg	-
	BBP (Butylbenzylphthalate)	ND	mg/kg	-
	DEHP (Di(2-ethylhexyl)-phthalate)	ND	mg/kg	-
	Sum	-	mg/kg	PASS
	DNOP (Di-n-octylphthalate)	ND	mg/kg	-
	DIDP (Diisodecylphthalate)	ND	mg/kg	-
	DINP (Di-iso-nonylphthalate)	ND	mg/kg	-
	Sum	-	mg/kg	PASS
	Overall Conclusion	-	-	PASS

-	Results			Conclusion
Tested Item(s)	Detected Analytes	Conc.	Unit	
I010	DBP (Dibutylphthalate)	ND	mg/kg	-
	BBP (Butylbenzylphthalate)	ND	mg/kg	-
	DEHP (Di(2-ethylhexyl)-phthalate)	ND	mg/kg	-
	Sum	-	mg/kg	PASS
	DNOP (Di-n-octylphthalate)	ND	mg/kg	-
	DIDP (Diisodecylphthalate)	ND	mg/kg	-
	DINP (Di-iso-nonylphthalate)	ND	mg/kg	-
	Sum	-	mg/kg	PASS
	Overall Conclusion	-	-	PASS

-	Results			Conclusion
Tested Item(s)	Detected Analytes	Conc.	Unit	
I011	DBP (Dibutylphthalate)	ND	mg/kg	-
	BBP (Butylbenzylphthalate)	ND	mg/kg	-
	DEHP (Di(2-ethylhexyl)-phthalate)	ND	mg/kg	-
	Sum	-	mg/kg	PASS
	DNOP (Di-n-octylphthalate)	ND	mg/kg	-
	DIDP (Diisodecylphthalate)	ND	mg/kg	-
	DINP (Di-iso-nonylphthalate)	ND	mg/kg	-
	Sum	-	mg/kg	PASS
	Overall Conclusion	-	-	PASS

Remark1:

Note:

ND = Not detected

% = percent = 10000 mg/kg

Detection Limit (mg/kg): Each 50; Sum 150

“>” = More than

mg/kg = milligram per kilogram

Conc. = Concentration

Remark2:

- The list of phthalates is summarized in table of Appendix

Remark3:

Recommended Max. limit specified by entries 51 and 52 of Regulation (EC) No 552/2009 amending Annex XVII of REACH Regulation (EC) No 1907/2006 (previously restricted under Directive 2005/84/EC)

TEST RESULTS

PHTHALATES*

Test Method : BV In-house Test Method CPSD-AN-00095-MTHD
Solvent extraction and analysis by Gas Chromatograph Mass Spectrometer (GC-MS)
or Liquid Chromatograph Mass Spectrometer (LC-MS).

Limit:	Sum of (DBP, BBP, DEHP) : Less than 1000 mg/kg (Sum) (0.1 % (Sum)) Sum of (DNOP, DIDP, DINP) : Less than 1000 mg/kg (Sum) (0.1 % (Sum))
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-	Results			Conclusion
Tested Item(s)	Detected Analytes	Conc.	Unit	
I012	DBP (Dibutylphthalate)	ND	mg/kg	-
	BBP (Butylbenzylphthalate)	ND	mg/kg	-
	DEHP (Di(2-ethylhexyl)-phthalate)	ND	mg/kg	-
	Sum	-	mg/kg	PASS
	DNOP (Di-n-octylphthalate)	ND	mg/kg	-
	DIDP (Diisodecylphthalate)	ND	mg/kg	-
	DINP (Di-iso-nonylphthalate)	ND	mg/kg	-
	Sum	-	mg/kg	PASS
	Overall Conclusion	-	-	PASS

-	Results			Conclusion
Tested Item(s)	Detected Analytes	Conc.	Unit	
I013	DBP (Dibutylphthalate)	ND	mg/kg	-
	BBP (Butylbenzylphthalate)	ND	mg/kg	-
	DEHP (Di(2-ethylhexyl)-phthalate)	ND	mg/kg	-
	Sum	-	mg/kg	PASS
	DNOP (Di-n-octylphthalate)	ND	mg/kg	-
	DIDP (Diisodecylphthalate)	ND	mg/kg	-
	DINP (Di-iso-nonylphthalate)	ND	mg/kg	-
	Sum	-	mg/kg	PASS
	Overall Conclusion	-	-	PASS

-	Results			Conclusion
Tested Item(s)	Detected Analytes	Conc.	Unit	
I014	DBP (Dibutylphthalate)	ND	mg/kg	-
	BBP (Butylbenzylphthalate)	ND	mg/kg	-
	DEHP (Di(2-ethylhexyl)-phthalate)	ND	mg/kg	-
	Sum	-	mg/kg	PASS
	DNOP (Di-n-octylphthalate)	ND	mg/kg	-
	DIDP (Diisodecylphthalate)	ND	mg/kg	-
	DINP (Di-iso-nonylphthalate)	ND	mg/kg	-
	Sum	-	mg/kg	PASS
	Overall Conclusion	-	-	PASS

Remark1:

Note:

ND = Not detected

% = percent = 10000 mg/kg

Detection Limit (mg/kg): Each 50; Sum 150

“>” = More than

mg/kg = milligram per kilogram

Conc. = Concentration

Remark2:

- The list of phthalates is summarized in table of Appendix

Remark3:

Recommended Max. limit specified by entries 51 and 52 of Regulation (EC) No 552/2009 amending Annex XVII of REACH Regulation (EC) No 1907/2006 (previously restricted under Directive 2005/84/EC)

TEST RESULTS

PHthalATES*

Test Method : BV In-house Test Method CPSD-AN-00095-MTHD
Solvent extraction and analysis by Gas Chromatograph Mass Spectrometer (GC-MS)
or Liquid Chromatograph Mass Spectrometer (LC-MS).

Limit:	Sum of (DBP, BBP, DEHP) : Less than 1000 mg/kg (Sum) (0.1 % (Sum)) Sum of (DNOP, DIDP, DINP) : Less than 1000 mg/kg (Sum) (0.1 % (Sum))
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-	Results			Conclusion
Tested Item(s)	Detected Analytes	Conc.	Unit	
I015	DBP (Dibutylphthalate)	ND	mg/kg	-
	BBP (Butylbenzylphthalate)	ND	mg/kg	-
	DEHP (Di(2-ethylhexyl)-phthalate)	ND	mg/kg	-
	Sum	-	mg/kg	PASS
	DNOP (Di-n-octylphthalate)	ND	mg/kg	-
	DIDP (Diisodecylphthalate)	ND	mg/kg	-
	DINP (Di-iso-nonylphthalate)	ND	mg/kg	-
	Sum	-	mg/kg	PASS
	Overall Conclusion	-	-	PASS

Remark1:

Note:

ND = Not detected

% = percent = 10000 mg/kg

Detection Limit (mg/kg): Each 50; Sum 150

“>” = More than

mg/kg = milligram per kilogram

Conc. = Concentration

Remark2:

- The list of phthalates is summarized in table of Appendix

Remark3:

Recommended Max. limit specified by entries 51 and 52 of Regulation (EC) No 552/2009 amending Annex XVII of REACH Regulation (EC) No 1907/2006 (previously restricted under Directive 2005/84/EC)

TEST RESULTS

POLYCYCLIC AROMATIC HYDROCARBONS (PAHs)*

Test method: BV CPS In House Method, CPSD-AN-00090-MTHD ZEK - 01.4-08

Parameter	Unit	Results		Requirements by Client
-	-	I002+I003+I016	I004	
Benzo (a) pyrene	mg/kg	ND	ND	0.5 mg/kg
Benzo (e) pyrene	mg/kg	ND	ND	
Benzo (a) anthracene	mg/kg	0.08	ND	
Chrysene	mg/kg	0.14	ND	
Benzo (b) fluoranthene	mg/kg	ND	ND	
Benzo (j) fluoranthene	mg/kg	ND	ND	
Benzo (k) fluoranthene	mg/kg	ND	ND	
Dibenzo(a,h)anthracene	mg/kg	ND	ND	
Sum	mg/kg	0.22	ND	
Conclusion	-	PASS	PASS	-

Parameter	Unit	Results			Requirements by Client
-	-	I005	I006	I007	
Benzo (a) pyrene	mg/kg	ND	ND	ND	0.5 mg/kg
Benzo (e) pyrene	mg/kg	ND	ND	ND	
Benzo (a) anthracene	mg/kg	ND	ND	ND	
Chrysene	mg/kg	ND	ND	ND	
Benzo (b) fluoranthene	mg/kg	ND	ND	ND	
Benzo (j) fluoranthene	mg/kg	ND	ND	ND	
Benzo (k) fluoranthene	mg/kg	ND	ND	ND	
Dibenzo(a,h)anthracene	mg/kg	ND	ND	ND	
Sum	mg/kg	ND	ND	ND	
Conclusion	-	PASS	PASS	PASS	-

ND: NOT DETECTED

">" = Greater than

Req. = Requirement

NR = Not requested

g = gram(s)

INCON. = Inconclusive

mg/kg = milligram(s) per kilogram = ppm = part(s) per million

Detection Limit (mg/kg) : Each : 0.2; Sum : 0.2

Remark : - The list of list of Polynuclear Aromatic Hydrocarbons are summarized in table of Appendix.

TEST RESULTS

POLYCYCLIC AROMATIC HYDROCARBONS (PAHs)*

Test method: BV CPS In House Method, CPSD-AN-00090-MTHD ZEK - 01.4-08

Parameter	Unit	Results			Requirements by Client
-	-	I008	I009	I010	0.5 mg/kg
Benzo (a) pyrene	mg/kg	ND	ND	ND	
Benzo (e) pyrene	mg/kg	ND	ND	ND	
Benzo (a) anthracene	mg/kg	ND	ND	ND	
Chrysene	mg/kg	ND	ND	ND	
Benzo (b) fluoranthene	mg/kg	ND	ND	ND	
Benzo (j) fluoranthene	mg/kg	ND	ND	ND	
Benzo (k) fluoranthene	mg/kg	ND	ND	ND	
Dibenzo(a,h)anthracene	mg/kg	ND	ND	ND	
Sum	mg/kg	ND	ND	ND	
Conclusion	-	PASS	PASS	PASS	-

Parameter	Unit	Results			Requirements by Client
-	-	I011	I012	I013	0.5 mg/kg
Benzo (a) pyrene	mg/kg	ND	ND	ND	
Benzo (e) pyrene	mg/kg	ND	ND	ND	
Benzo (a) anthracene	mg/kg	ND	ND	ND	
Chrysene	mg/kg	ND	ND	ND	
Benzo (b) fluoranthene	mg/kg	ND	ND	ND	
Benzo (j) fluoranthene	mg/kg	ND	ND	ND	
Benzo (k) fluoranthene	mg/kg	ND	ND	ND	
Dibenzo(a,h)anthracene	mg/kg	ND	ND	ND	
Sum	mg/kg	ND	ND	ND	
Conclusion	-	PASS	PASS	PASS	-

ND: NOT DETECTED

">" = Greater than

Req. = Requirement

NR = Not requested

g = gram(s)

INCON. = Inconclusive

mg/kg = milligram(s) per kilogram = ppm = part(s) per million

Detection Limit (mg/kg) : Each : 0.2; Sum : 0.2

Remark : - The list of list of Polynuclear Aromatic Hydrocarbons are summarized in table of Appendix.

TEST RESULTS

POLYCYCLIC AROMATIC HYDROCARBONS (PAHs)*

Test method: BV CPS In House Method, CPSD-AN-00090-MTHD ZEK - 01.4-08

Parameter	Unit	Results		Requirements by Client
-	-	I014	I015	0.5 mg/kg
Benzo (a) pyrene	mg/kg	ND	ND	
Benzo (e) pyrene	mg/kg	ND	ND	
Benzo (a) anthracene	mg/kg	ND	ND	
Chrysene	mg/kg	ND	ND	
Benzo (b) fluoranthene	mg/kg	ND	ND	
Benzo (j) fluoranthene	mg/kg	ND	ND	
Benzo (k) fluoranthene	mg/kg	ND	ND	
Dibenzo(a,h)anthracene	mg/kg	ND	ND	
Sum	mg/kg	ND	ND	
Conclusion	-	PASS	PASS	-

ND: NOT DETECTED

“>” = Greater than

Req. = Requirement

NR = Not requested

g = gram(s)

INCON. = Inconclusive

mg/kg = milligram(s) per kilogram = ppm = part(s) per million

Detection Limit (mg/kg) : Each : 0.2; Sum : 0.2

Remark : - The list of list of Polynuclear Aromatic Hydrocarbons are summarized in table of Appendix.

APPENDIX A

TEST NAME	STANDARD NAME	MEASUREMENT UNCERTAINTY
Polybag /Plastic Thickness Sheeting Measurement	EN 71-1 4.3, 5.3 & 6, 8.25.1	±12,2 %
Yo-Yo Ball Test	EN 71-1 part 4.24, 8.37.1 6 8.37.2	±2,8 %
Torque Test	EN 71-1 part 8.3	±15,7 %
Perimeter of Toys	EN 71-1 part 8.36	±1,2 %
Tension Test	EN 71-1 part 8.4	±18,1 %
Kinetic Energy Test	EN 71-2 part 8.24	±0,9 %
Soft Filled Toys	EN 71-2 part 4.5	±6,97 %
Heavy Metal	DIN EN 71 Part 3	± %9
	BS EN 71: Part 3	± %9

APPENDIX B

TEST NAME	STANDARD NAME	MEASUREMENT UNCERTAINTY
Phthalates	In-house test method CPSD-AN-00095-MTHD	±0.16 x result

List of Phthalates:

No.	Name of Analytes	CAS-No.	No.	Name of Analytes	CAS-No.
1	Butylbenzylphthalate (BBP)	85-68-7	5	Di-iso-nonylphthalate (DINP)	28553-12-0
2	Dibutylphthalate (DBP)	84-74-2	6	Diisodecylphthalate (DIDP)	26761-40-0
3	Di(2-ethylhexyl)-phthalate (DEHP)	117-81-7	7	-	-
4	Di-n-octylphthalate (DNOP)	117-84-0	-	-	-

APPENDIX C

No.	Name of Analytes	CAS-No.
1	Benzo (a) anthracene	56-55-3
2	Chrysene	218-01-9
3	Benzo (a) pyrene	50-32-8
4	Benzo (e) pyrene	192-97-2
5	Dibenzo (a,h) anthracene	53-70-3
6	Benzo (b) fluoranthene	205-99-2
7	Benzo (k) fluoranthene	207-08-9
8	Benzo (j) fluoranthene	205-82-3

APPENDIX D

TEST NAME	STANDARD NAME	MEASUREMENT UNCERTAINTY
Total Cadmium Content	BS EN 1122 CPSD-AN-00004-MTHD	± %3

-END OF REPORT-