

TEST REPORT

AB-0505-T

72191770083
REVISION

16.07.2019

LAB LOCATION: TURKEY
LAB NO. : (7219)177-0083 REVISION
SERVICE TYPE: Regular
DATE IN: June 26th, 2019
DATE OUT: July 10th, 2019
REVISION DATE: July 16th, 2019

MATERIAL SUBMITTED : BİLGİ DAĞITIM KİTAP KIRTASIYE BÜRO
MALZEMELERİ TİC. LTD. ŞTİ.
(Address: Merkez Mah. 29 Ekim Cad. No:53 Yenibosna-
Bahçelievler / YENİBOSNA)

SUPPLIER REFERENCE : LT943
BUYER : BİLGİ DAĞITIM KİTAP KIRTASIYE BÜRO
MALZEMELERİ TİC. LTD. ŞTİ. /

MANUFACTURER :

COUNTRY OF ORIGIN :
COUNTRY OF DESTINATION /

SAMPLE DESCRIPTION : **Sample A : COLOURED PENCIL**

COLOR : /
SUBMITTED CARE : /
INSTRUCTION

LABEL AGE GRADE : 36 Months +
TESTED AGE GRADE : 36 Months +
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
Migration of Certain Elements*	P
Total Cadmium Content *	P
Polynuclear Aromatic Hydrocarbons (PAHs)*	P
Phthalates*	P
*TURKAK ACCREDITED TESTS	

C/N PC/EY

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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.

REMARK 1: 72191770083 test report dated July 10th, 2019 is not valid, it is replaced by this report 72191770083 REVISION .

REMARK 2: As per client's request, "Sample Photo" has been corrected and "Supplier Reference" has been changed as "LT943".

EXECUTIVE SUMMARY: Only vendor selected tests have been performed and submitted sample has been rated as "**PASS**".

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

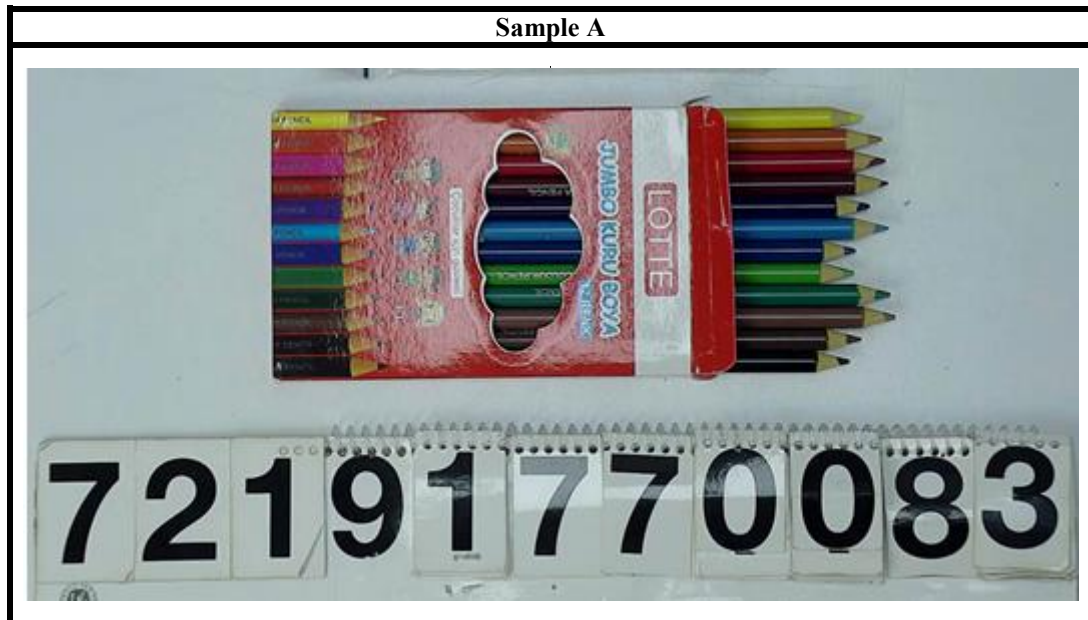


Eylem Yaldizli
Senior Client Team Lead -Hardline



Kerem Can
Operations Manager

-Photos of the Submitted Sample-



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	Manufacturer Name And Address Remark 1: There is not any manufacturer name and address on toy. According to TSD 2009/48/EC the manufacturers shall indicate their name, registered trade name or registered trade mark and the address at which they can be contacted on the toy, or, where that is not possible, on its packaging or in a document accompanying the toy.	-	Not Present (See Remark 1)
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.

TEST RESULTS

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

Clause	Clause Description	RESULT (A)
4.1	General requirements	PASS

TEST RESULTS

MIGRATION OF CERTAIN ELEMENTS

Test Method : European Standard EN 71 Part 3: 2013 with Amendment A3: 2018, Section 8.

Tested Item(s)
Sample A

- : I001 Black Writing Part End Of Pencil
- : I002 Dark Brown Writing Part End Of Pencil
- : I003 Purple Writing Part End Of Pencil
- : I004 Light Brown Writing Part End Of Pencil
- : I005 Yellow Writing Part End Of Pencil
- : I006 Bordeaux Writing Part End Of Pencil
- : I007 Orange Writing Part End Of Pencil
- : I008 Red Writing Part End Of Pencil
- : I009 Dark Green Writing Part End Of Pencil
- : I010 Light Green Writing Part End Of Pencil
- : I011 Light Blue Writing Part End Of Pencil
- : I012 Dark Blue Writing Part End Of Pencil
- : I013 Black Coating On Pencil
- : I014 Dark Brown On Pencil
- : I015 Purple Coating On Pencil
- : I016 Light Brown Coating On Pencil
- : I017 Yellow Coating On Pencil
- : I018 Bordeaux Coating On Pencil
- : I019 Orange Coating On Pencil
- : I020 Red Coating On Pencil
- : I021 Dark Green Coating On Pencil
- : I022 Light Green Coating On Pencil
- : I023 Light Blue Coating On Pencil
- : I024 Dark Blue Coating On Pencil
- : I025 Silver Coating On The Pencil
- : I026 Slat Part

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

TEST RESULTS

MIGRATION OF CERTAIN ELEMENTS

Test Method : European Standard EN 71 Part 3: 2013 with Amendment A3: 2018, Section 8.

-	Unit	Req.	Result				
Test Item(s)	-	-	I001	I002	I003	I005	I006
Type	-	I	I	I	I	I	I
Parameter	-	-	-	-	-	-	-
Aluminium (Al)	mg/kg	5625	2.54	2.79	2.28	2.22	2.84
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	4.02	13.51	5.78	ND	26.45
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	ND	ND	ND	ND	ND
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	0.82	0.61	0.57	0.73	ND
Manganese (Mn)	mg/kg	1200	5.21	5.28	5.04	4.73	4.95
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	ND	ND	ND	ND	ND
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	5.10	4.85	3.13	ND	2.70
Conclusion	-	-	PASS	PASS	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 In House Ion Chromatography Analysis

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 : 0.15 [0.002]; Each (Others) : 2

">" = Greater than

g = gram(s)

Req. = Requirement

INCON. = Inconclusive

Remark :

- Results of Cr III and Cr VI were reported as sum of soluble chromium content unless further verified.
- 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.

Comment :

Latest amendment of European Parliament and Council Directive 2009/48/EC, Annex II, Part III, Point 13 :			
-	Type I	Type II	Type III
Element(s)	Chromium VI (Cr VI)	Chromium VI (Cr VI)	Chromium VI (Cr VI)
Current	0.02 mg/kg	0.005 mg/kg	0.2 mg/kg
Amended ^[a]	0.02 mg/kg	0.005 mg/kg	0.053 mg/kg
^[a] denotes as these maximum allowable limits apply from November 18, 2019 according to European Commission Directive (EU) 2018/725 of 16 May 2018 amending, for the purpose 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 chromium VI.

TEST RESULTS

MIGRATION OF CERTAIN ELEMENTS

Test Method : European Standard EN 71 Part 3: 2013 with Amendment A3: 2018, Section 8.

-	Unit	Req.	Result					
Test Item(s)	-	-	I007	I008	I009	I010	I011	I012
Type	-	I	I	I	I	I	I	I
Parameter	-	-	-	-	-	-	-	-
Aluminium (Al)	mg/kg	5625	2.17	3.06	3.90	2.77	4.77	2.61
Antimony (Sb)	mg/kg	45	ND	ND	ND	ND	ND	ND
Arsenic (As)	mg/kg	3.8	ND	0.15	ND	ND	ND	ND
Barium (Ba)	mg/kg	1500	7.56	25.93	3.37	2.63	2.89	5.19
Boron (B)	mg/kg	1200	ND	ND	ND	ND	ND	ND
Cadmium (Cd)	mg/kg	1.3	ND	ND	ND	ND	ND	ND
Chromium III (Cr III)	mg/kg	37.5	ND	ND	ND	ND	ND	ND
Chromium VI (Cr VI)	mg/kg	0.02	ND	ND	ND	ND	ND	ND
Cobalt (Co)	mg/kg	10.5	ND	ND	ND	ND	ND	ND
Copper (Cu)	mg/kg	622.5	ND	ND	ND	ND	ND	ND
Lead (Pb)	mg/kg	13.5	0.63	0.89	0.88	0.80	1.16	0.73
Manganese (Mn)	mg/kg	1200	4.47	6.45	5.86	5.47	7.25	7.48
Mercury (Hg)	mg/kg	7.5	ND	ND	ND	ND	ND	ND
Nickel (Ni)	mg/kg	75	ND	ND	ND	ND	ND	ND
Selenium (Se)	mg/kg	37.5	ND	ND	ND	ND	ND	ND
Strontium (Sr)	mg/kg	4500	ND	ND	ND	ND	ND	ND
Tin (Sn)	mg/kg	15000	ND	ND	ND	ND	ND	ND
Organic tin	mg/kg	0.9	ND	ND	ND	ND	ND	ND
Zinc (Zn)	mg/kg	3750	ND	3.21	18.86	5.08	4.47	2.49
Conclusion	-	-	PASS	PASS	PASS	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 In House Ion Chromatography Analysis

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 : 0.15 [0.002]; Each (Others) : 2

">" = Greater than

g = gram(s)

Req. = Requirement

INCON. = Inconclusive

Remark :

- Results of Cr III and Cr VI were reported as sum of soluble chromium content unless further verified.
- 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.

Comment :

Latest amendment of European Parliament and Council Directive 2009/48/EC, Annex II, Part III, Point 13 :			
-	Type I	Type II	Type III
Element(s)	Chromium VI (Cr VI)	Chromium VI (Cr VI)	Chromium VI (Cr VI)
Current	0.02 mg/kg	0.005 mg/kg	0.2 mg/kg
Amended ^[a]	0.02 mg/kg	0.005 mg/kg	0.053 mg/kg
^[a] denotes as these maximum allowable limits apply from November 18, 2019 according to European			

Commission Directive (EU) 2018/725 of 16 May 2018 amending, for the purpose 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 chromium VI.

TEST RESULTS

MIGRATION OF CERTAIN ELEMENTS

Test Method : European Standard EN 71 Part 3: 2013 with Amendment A3: 2018, Section 8.

-	Unit	Req.	Result
Test Item(s)	-	-	I004
Type	-	I	I
Parameter	-	-	-
Aluminium (Al)	mg/kg	5625	5.78
Antimony (Sb)	mg/kg	45	ND
Arsenic (As)	mg/kg	3.8	0.19
Barium (Ba)	mg/kg	1500	11.60
Boron (B)	mg/kg	1200	ND
Cadmium (Cd)	mg/kg	1.3	ND
Total Chromium	mg/kg	-	0.006
Chromium III (Cr III)	mg/kg	37.5	##
Chromium VI (Cr VI)	mg/kg	0.02	##
Cobalt (Co)	mg/kg	10.5	ND
Copper (Cu)	mg/kg	622.5	2.42
Lead (Pb)	mg/kg	13.5	1.31
Manganese (Mn)	mg/kg	1200	9.62
Mercury (Hg)	mg/kg	7.5	ND
Nickel (Ni)	mg/kg	75	ND
Selenium (Se)	mg/kg	37.5	ND
Strontium (Sr)	mg/kg	4500	ND
Tin (Sn)	mg/kg	15000	ND
Organic tin	mg/kg	0.9	ND
Zinc (Zn)	mg/kg	3750	5.65
Conclusion	-	-	PASS

As total Chromium is less than 0.02 mg/kg Chromium (VI) has not been performed.

Note / Key :

ND = Not detected

NR = Not requested

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

[] = Detection Limit by In House Ion Chromatography Analysis

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 : 0.15 [0.002]; Each (Others) : 2

">" = Greater than

g = gram(s)

Req. = Requirement

INCON. = Inconclusive

Remark :

- Results of Cr III and Cr VI were reported as sum of soluble chromium content unless further verified.
- 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.

Comment :

Latest amendment of European Parliament and Council Directive 2009/48/EC, Annex II, Part III, Point 13 :			
-	Type I	Type II	Type III
Element(s)	Chromium VI (Cr VI)	Chromium VI (Cr VI)	Chromium VI (Cr VI)
Current	0.02 mg/kg	0.005 mg/kg	0.2 mg/kg
Amended^[a]	0.02 mg/kg	0.005 mg/kg	0.053 mg/kg
<p>^[a] denotes as these maximum allowable limits apply from November 18, 2019 according to European Commission Directive (EU) 2018/725 of 16 May 2018 amending, for the purpose 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 chromium VI.</p>			

TEST RESULTS

Migration of Certain Elements

Test Method : European Standard EN 71 Part 3: 2013 with Amendment A3: 2018, 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)	-	-	I013	I014	I016	I019
Type	-	III	III	III	III	III
Parameter	-	-	-	-	-	-
Aluminium (Al)	mg/kg	70000	ND	ND	ND	ND
Antimony (Sb)	mg/kg	560	ND	2.07	ND	ND
Arsenic (As)	mg/kg	47	ND	ND	ND	ND
Barium (Ba)	mg/kg	18750	ND	ND	ND	ND
Boron (B)	mg/kg	15000	ND	ND	ND	ND
Cadmium (Cd)	mg/kg	17	ND	ND	ND	ND
Total Chromium	mg/kg	-	0.08	0.013	0.013	0.012
Chromium III (Cr III)	mg/kg	460	##	##	##	##
Chromium VI (Cr VI)	mg/kg	0.2	##	##	##	##
Cobalt (Co)	mg/kg	130	ND	ND	ND	ND
Copper (Cu)	mg/kg	7700	ND	ND	ND	ND
Lead (Pb)	mg/kg	23	ND	ND	ND	ND
Manganese (Mn)	mg/kg	15000	ND	ND	ND	ND
Mercury (Hg)	mg/kg	94	ND	ND	ND	ND
Nickel (Ni)	mg/kg	930	ND	ND	ND	ND
Selenium (Se)	mg/kg	460	ND	ND	ND	ND
Strontium (Sr)	mg/kg	56000	ND	ND	ND	ND
Tin (Sn)	mg/kg	180000	ND	ND	ND	ND
Organic tin	mg/kg	12	ND	ND	ND	ND
Zinc (Zn)	mg/kg	46000	ND	ND	ND	ND
Conclusion	-	-	PASS	PASS	PASS	PASS

As total Chromium is less than 0.2 mg/kg Chromium (VI) has not been performed.

Note / Key :

ND = Not detected
NR = Not requested

mg/kg = milligram(s) per kilogram = ppm = part(s) per million
[] = Detection Limit by In House Ion Chromatography Analysis

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 : 0.15 [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.

Comment :

Latest amendment of European Parliament and Council Directive 2009/48/EC, Annex II, Part III, Point 13 :			
-	Type I	Type II	Type III
Element(s)	Chromium VI (Cr VI)	Chromium VI (Cr VI)	Chromium VI (Cr VI)
Current	0.02 mg/kg	0.005 mg/kg	0.2 mg/kg
Amended^[a]	0.02 mg/kg	0.005 mg/kg	0.053 mg/kg
^[a] denotes as these maximum allowable limits apply from November 18, 2019 according to European Commission Directive (EU) 2018/725 of 16 May 2018 amending, for the purpose 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 chromium VI.			

TEST RESULTS

Migration of Certain Elements

Test Method : European Standard EN 71 Part 3: 2013 with Amendment A3: 2018, 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)	-	-	I021	I022	I025	I026
Type	-	III	III	III	III	III
Parameter	-	-	-	-	-	-
Aluminium (Al)	mg/kg	70000	ND	ND	3.79	2.31
Antimony (Sb)	mg/kg	560	ND	ND	ND	6.72
Arsenic (As)	mg/kg	47	ND	ND	ND	ND
Barium (Ba)	mg/kg	18750	ND	ND	ND	ND
Boron (B)	mg/kg	15000	ND	ND	ND	ND
Cadmium (Cd)	mg/kg	17	ND	ND	ND	ND
Total Chromium	mg/kg	-	0.011	0.025	0.036	0.064
Chromium III (Cr III)	mg/kg	460	##	##	##	##
Chromium VI (Cr VI)	mg/kg	0.2	##	##	##	##
Cobalt (Co)	mg/kg	130	ND	ND	ND	ND
Copper (Cu)	mg/kg	7700	ND	ND	ND	ND
Lead (Pb)	mg/kg	23	ND	ND	ND	ND
Manganese (Mn)	mg/kg	15000	ND	ND	ND	ND
Mercury (Hg)	mg/kg	94	ND	ND	ND	ND
Nickel (Ni)	mg/kg	930	ND	ND	ND	ND
Selenium (Se)	mg/kg	460	ND	ND	ND	ND
Strontium (Sr)	mg/kg	56000	ND	ND	ND	2.20
Tin (Sn)	mg/kg	180000	ND	ND	ND	0.98
Organic tin	mg/kg	12	ND	ND	ND	ND
Zinc (Zn)	mg/kg	46000	ND	ND	ND	2.69
Conclusion	-	-	PASS	PASS	PASS	PASS

As total Chromium is less than 0.2 mg/kg Chromium (VI) has not been performed.

Note / Key :

ND = Not detected

NR = Not requested

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

[] = Detection Limit by In House Ion Chromatography Analysis

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 : 0.15 [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.

Comment :

Latest amendment of European Parliament and Council Directive 2009/48/EC, Annex II, Part III, Point 13 :			
-	Type I	Type II	Type III
Element(s)	Chromium VI (Cr VI)	Chromium VI (Cr VI)	Chromium VI (Cr VI)
Current	0.02 mg/kg	0.005 mg/kg	0.2 mg/kg
Amended^[a]	0.02 mg/kg	0.005 mg/kg	0.053 mg/kg
^[a] denotes as these maximum allowable limits apply from November 18, 2019 according to European Commission Directive (EU) 2018/725 of 16 May 2018 amending, for the purpose 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 chromium VI.			

TEST RESULTS

Migration of Certain Elements

Test Method : European Standard EN 71 Part 3: 2013 with Amendment A3: 2018, 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)	-	-	I015	I017	I018	I020
Type	-	III	III	III	III	III
Parameter	-	-	-	-	-	-
Aluminium (Al)	mg/kg	70000	ND	ND	ND	ND
Antimony (Sb)	mg/kg	560	ND	ND	ND	ND
Arsenic (As)	mg/kg	47	ND	ND	ND	ND
Barium (Ba)	mg/kg	18750	ND	ND	ND	ND
Boron (B)	mg/kg	15000	ND	ND	ND	ND
Cadmium (Cd)	mg/kg	17	ND	ND	ND	ND
Chromium III (Cr III)	mg/kg	460	ND	ND	ND	ND
Chromium VI (Cr VI)	mg/kg	0.2	ND	ND	ND	ND
Cobalt (Co)	mg/kg	130	ND	ND	ND	ND
Copper (Cu)	mg/kg	7700	ND	ND	ND	ND
Lead (Pb)	mg/kg	23	ND	ND	ND	ND
Manganese (Mn)	mg/kg	15000	ND	ND	ND	ND
Mercury (Hg)	mg/kg	94	ND	ND	ND	ND
Nickel (Ni)	mg/kg	930	ND	ND	ND	ND
Selenium (Se)	mg/kg	460	ND	ND	ND	ND
Strontium (Sr)	mg/kg	56000	ND	ND	ND	ND
Tin (Sn)	mg/kg	180000	ND	ND	ND	ND
Organic tin	mg/kg	12	ND	ND	ND	ND
Zinc (Zn)	mg/kg	46000	ND	ND	ND	ND
Conclusion	-	-	PASS	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 In House Ion Chromatography Analysis

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 : 0.15 [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.

Comment :

Latest amendment of European Parliament and Council Directive 2009/48/EC, Annex II, Part III, Point 13 :			
-	Type I	Type II	Type III
Element(s)	Chromium VI (Cr VI)	Chromium VI (Cr VI)	Chromium VI (Cr VI)
Current	0.02 mg/kg	0.005 mg/kg	0.2 mg/kg
Amended^[a]	0.02 mg/kg	0.005 mg/kg	0.053 mg/kg
^[a] denotes as these maximum allowable limits apply from November 18, 2019 according to European Commission Directive (EU) 2018/725 of 16 May 2018 amending, for the purpose 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 chromium VI.			

TEST RESULTS

Migration of Certain Elements

Test Method : European Standard EN 71 Part 3: 2013 with Amendment A3: 2018, 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)	-	-	I023	I024
Type	-	III	III	III
Parameter	-	-	-	-
Aluminium (Al)	mg/kg	70000	ND	ND
Antimony (Sb)	mg/kg	560	2.11	ND
Arsenic (As)	mg/kg	47	ND	ND
Barium (Ba)	mg/kg	18750	ND	ND
Boron (B)	mg/kg	15000	ND	ND
Cadmium (Cd)	mg/kg	17	ND	ND
Chromium III (Cr III)	mg/kg	460	ND	ND
Chromium VI (Cr VI)	mg/kg	0.2	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	ND	ND
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	ND
Tin (Sn)	mg/kg	180000	ND	ND
Organic tin	mg/kg	12	ND	ND
Zinc (Zn)	mg/kg	46000	ND	ND
Conclusion	-	-	PASS	PASS

Note / Key :

ND = Not detected

NR = Not requested

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

[] = Detection Limit by In House Ion Chromatography Analysis

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 : 0.15 [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.

Comment :

Latest amendment of European Parliament and Council Directive 2009/48/EC, Annex II, Part III, Point 13 :			
-	Type I	Type II	Type III
Element(s)	Chromium VI (Cr VI)	Chromium VI (Cr VI)	Chromium VI (Cr VI)
Current	0.02 mg/kg	0.005 mg/kg	0.2 mg/kg
Amended^[a]	0.02 mg/kg	0.005 mg/kg	0.053 mg/kg
^[a] denotes as these maximum allowable limits apply from November 18, 2019 according to European Commission Directive (EU) 2018/725 of 16 May 2018 amending, for the purpose 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 chromium VI.			

TEST RESULTS

TOTAL CADMIUM CONTENT

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

Tested Item(s)
Sample A

- : I001 Black Writing Part End Of Pencil+ Dark Brown Writing Part End Of Pencil + Purple Writing Part End Of Pencil
- : I002 Light Brown Writing Part End Of Pencil + Yellow Writing Part End Of Pencil + Bordeaux Writing Part End Of Pencil
- : I003 Orange Writing Part End Of Pencil + Red Writing Part End Of Pencil + Dark Green Writing Part End Of Pencil
- : I004 Light Green Writing Part End Of Pencil+ Light Blue Writing Part End Of Pencil+ Dark Blue Writing Part End Of Pencil
- : I005 Black Coating On Pencil+ Dark Brown On Pencil+ Purple Coating On Pencil
- : I006 Light Brown Coating On Pencil+ Yellow Coating On Pencil+ Bordeaux Coating On Pencil
- : I007 Orange Coating On Pencil+ Red Coating On Pencil+ Dark Green Coating On Pencil
- : I008 Light Green Coating On Pencil + Light Blue Coating On Pencil
- : I009 Dark Blue Coating On Pencil+ Silver Coating On The Pencil

Limit:	100 mg/kg
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Parameter	Unit	Results				
-	-	I001	I002	I003	I004	I005
Total Cadmium (Cd)	ppm	<10	<10	<10	<10	<10
Conclusion	-	PASS	PASS	PASS	PASS	PASS

Parameter	Unit	Results			
-	-	I006	I007	I008	I009
Total Cadmium (Cd)	ppm	<10	<10	<10	<10
Conclusion	-	PASS	PASS	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) : 10

“>” = Greater than
% = percent
No. = Number(s)

Remark : Analysis has been performed and evaluated as European Parliament and Council Regulation (EC) No. 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) with its Latest Amendment, Entry 23

TEST RESULTS

POLYNUCLEAR AROMATIC HYDROCARBONS (PAHs)

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

Tested Item(s) Sample A	:	I001	Black Writing Part End Of Pencil
	:	I002	Dark Brown Writing Part End Of Pencil
	:	I003	Purple Writing Part End Of Pencil
	:	I004	Light Brown Writing Part End Of Pencil
	:	I005	Yellow Writing Part End Of Pencil
	:	I006	Bordeaux Writing Part End Of Pencil
	:	I007	Orange Writing Part End Of Pencil
	:	I008	Red Writing Part End Of Pencil
	:	I009	Dark Green Writing Part End Of Pencil
	:	I010	Light Green Writing Part End Of Pencil
	:	I011	Light Blue Writing Part End Of Pencil
	:	I012	Dark Blue Writing Part End Of Pencil
	:	I013	Black Coating On Pencil + Dark Brown On Pencil
	:	I014	Purple Coating On Pencil + Light Brown Coating On Pencil
	:	I015	Yellow Coating On Pencil + Bordeaux Coating On Pencil
	:	I016	Orange Coating On Pencil + Red Coating On Pencil
	:	I017	Dark Green Coating On Pencil + Light Green Coating On Pencil
	:	I018	Light Blue Coating On Pencil
	:	I019	Dark Blue Coating On Pencil + Dark Blue Coating On Pencil

Parameter	Unit	Results					Requirements
-	-	I001	I002	I003	I004	I005	Each of 8 PAHs < 0.5 mg/kg
Benzo (a) pyrene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	
Benzo (e) pyrene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	
Benzo (a) anthracene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	
Chrysene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	
Benzo (b) fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	
Benzo (j) fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	
Benzo (k) fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	
Dibenzo(a,h)anthracene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	
Sum	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	
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 (mg/kg) : Each : 0.2; Sum : 0.2

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

TEST RESULTS

POLYNUCLEAR AROMATIC HYDROCARBONS (PAHs)

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

Parameter	Unit	Results					Requirements
-	-	I006	I007	I008	I009	I010	Each of 8 PAHs < 0.5 mg/kg
Benzo (a) pyrene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	
Benzo (e) pyrene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	
Benzo (a) anthracene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	
Chrysene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	
Benzo (b) fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	
Benzo (j) fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	
Benzo (k) fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	
Dibenzo(a,h)anthracene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	
Sum	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	
Conclusion	-	PASS	PASS	PASS	PASS	PASS	-

Parameter	Unit	Results					Requirements
-	-	I011	I012	I013	I014	I015	Each of 8 PAHs < 0.5 mg/kg
Benzo (a) pyrene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	
Benzo (e) pyrene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	
Benzo (a) anthracene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	
Chrysene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	
Benzo (b) fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	
Benzo (j) fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	
Benzo (k) fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	
Dibenzo(a,h)anthracene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	
Sum	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	
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 (mg/kg) : Each : 0.2; Sum : 0.2

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

TEST RESULTS

POLYNUCLEAR AROMATIC HYDROCARBONS (PAHs)

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

Parameter	Unit	Results				Requirements
-	-	I016	I017	I018	I019	Each of 8 PAHs < 0.5 mg/kg
Benzo (a) pyrene	mg/kg	<0.2	<0.2	<0.2	<0.2	
Benzo (e) pyrene	mg/kg	<0.2	<0.2	<0.2	<0.2	
Benzo (a) anthracene	mg/kg	<0.2	<0.2	<0.2	<0.2	
Chrysene	mg/kg	<0.2	<0.2	<0.2	<0.2	
Benzo (b) fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	
Benzo (j) fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	
Benzo (k) fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	
Dibenzo(a,h)anthracene	mg/kg	<0.2	<0.2	<0.2	<0.2	
Sum	mg/kg	<0.2	<0.2	<0.2	<0.2	-
Conclusion	-	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 (mg/kg) : Each : 0.2; Sum : 0.2

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

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).

Tested Item(s) Sample A	: I001	Black Writing Part End Of Pencil
	: I002	Dark Brown Writing Part End Of Pencil
	: I003	Purple Writing Part End Of Pencil
	: I004	Light Brown Writing Part End Of Pencil
	: I005	Yellow Writing Part End Of Pencil
	: I006	Bordeaux Writing Part End Of Pencil
	: I007	Orange Writing Part End Of Pencil
	: I008	Red Writing Part End Of Pencil
	: I009	Dark Green Writing Part End Of Pencil
	: I010	Light Green Writing Part End Of Pencil
	: I011	Light Blue Writing Part End Of Pencil
	: I012	Dark Blue Writing Part End Of Pencil
	: I013	Black Coating On Pencil + Dark Brown On Pencil+ Purple Coating On Pencil
	: I014	Light Brown Coating On Pencil + Yellow Coating On Pencil + Bordeaux Coating On Pencil
	: I015	Orange Coating On Pencil + Red Coating On Pencil+ Dark Green Coating On Pencil
	: I016	Light Green Coating On Pencil + Light Blue Coating On Pencil
	: I017	Dark Blue Coating On Pencil + Silver Coating On The Pencil

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	
I001	DBP (Dibutylphthalate)	ND	mg/kg	-
	BBP (Butylbenzylphthalate)	ND	mg/kg	-
	DEHP (Di(2-ethylhexyl)-phthalate)	ND	mg/kg	-
	Sum	ND	mg/kg	PASS
	DNOP (Di-n-octylphthalate)	ND	mg/kg	-
	DIDP (Diisodecylphthalate)	ND	mg/kg	-
	DINP (Di-iso-nonylphthalate)	ND	mg/kg	-
	Sum	ND	mg/kg	PASS
	Overall Conclusion	-	-	PASS

-	Results			Conclusion
Tested Item(s)	Detected Analytes	Conc.	Unit	
I002	DBP (Dibutylphthalate)	ND	mg/kg	-
	BBP (Butylbenzylphthalate)	ND	mg/kg	-
	DEHP (Di(2-ethylhexyl)-phthalate)	ND	mg/kg	-
	Sum	ND	mg/kg	PASS
	DNOP (Di-n-octylphthalate)	ND	mg/kg	-
	DIDP (Diisodecylphthalate)	ND	mg/kg	-
	DINP (Di-iso-nonylphthalate)	ND	mg/kg	-
	Sum	ND	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 C.

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))
---------------	--

-	Results			Conclusion
Tested Item(s)	Detected Analytes	Conc.	Unit	
I003	DBP (Dibutylphthalate)	ND	mg/kg	-
	BBP (Butylbenzylphthalate)	ND	mg/kg	-
	DEHP (Di(2-ethylhexyl)-phthalate)	ND	mg/kg	-
	Sum	ND	mg/kg	PASS
	DNOP (Di-n-octylphthalate)	ND	mg/kg	-
	DIDP (Diisodecylphthalate)	ND	mg/kg	-
	DINP (Di-iso-nonylphthalate)	ND	mg/kg	-
	Sum	ND	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	ND	mg/kg	PASS
	DNOP (Di-n-octylphthalate)	ND	mg/kg	-
	DIDP (Diisodecylphthalate)	ND	mg/kg	-
	DINP (Di-iso-nonylphthalate)	ND	mg/kg	-
	Sum	ND	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	ND	mg/kg	PASS
	DNOP (Di-n-octylphthalate)	ND	mg/kg	-
	DIDP (Diisodecylphthalate)	ND	mg/kg	-
	DINP (Di-iso-nonylphthalate)	ND	mg/kg	-
	Sum	ND	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 C.

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	
1006	DBP (Dibutylphthalate)	ND	mg/kg	-
	BBP (Butylbenzylphthalate)	ND	mg/kg	-
	DEHP (Di(2-ethylhexyl)-phthalate)	ND	mg/kg	-
	Sum	ND	mg/kg	PASS
	DNOP (Di-n-octylphthalate)	ND	mg/kg	-
	DIDP (Diisodecylphthalate)	ND	mg/kg	-
	DINP (Di-iso-nonylphthalate)	ND	mg/kg	-
	Sum	ND	mg/kg	PASS
	Overall Conclusion	-	-	PASS

-	Results			Conclusion
Tested Item(s)	Detected Analytes	Conc.	Unit	
1007	DBP (Dibutylphthalate)	ND	mg/kg	-
	BBP (Butylbenzylphthalate)	ND	mg/kg	-
	DEHP (Di(2-ethylhexyl)-phthalate)	ND	mg/kg	-
	Sum	ND	mg/kg	PASS
	DNOP (Di-n-octylphthalate)	ND	mg/kg	-
	DIDP (Diisodecylphthalate)	ND	mg/kg	-
	DINP (Di-iso-nonylphthalate)	ND	mg/kg	-
	Sum	ND	mg/kg	PASS
	Overall Conclusion	-	-	PASS

-	Results			Conclusion
Tested Item(s)	Detected Analytes	Conc.	Unit	
1008	DBP (Dibutylphthalate)	ND	mg/kg	-
	BBP (Butylbenzylphthalate)	ND	mg/kg	-
	DEHP (Di(2-ethylhexyl)-phthalate)	ND	mg/kg	-
	Sum	ND	mg/kg	PASS
	DNOP (Di-n-octylphthalate)	ND	mg/kg	-
	DIDP (Diisodecylphthalate)	ND	mg/kg	-
	DINP (Di-iso-nonylphthalate)	ND	mg/kg	-
	Sum	ND	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 C.

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))
---------------	--

-	Results			Conclusion
Tested Item(s)	Detected Analytes	Conc.	Unit	
1009	DBP (Dibutylphthalate)	ND	mg/kg	-
	BBP (Butylbenzylphthalate)	ND	mg/kg	-
	DEHP (Di(2-ethylhexyl)-phthalate)	ND	mg/kg	-
	Sum	ND	mg/kg	PASS
	DNOP (Di-n-octylphthalate)	ND	mg/kg	-
	DIDP (Diisodecylphthalate)	ND	mg/kg	-
	DINP (Di-iso-nonylphthalate)	ND	mg/kg	-
	Sum	ND	mg/kg	PASS
	Overall Conclusion	-	-	PASS

-	Results			Conclusion
Tested Item(s)	Detected Analytes	Conc.	Unit	
1010	DBP (Dibutylphthalate)	ND	mg/kg	-
	BBP (Butylbenzylphthalate)	ND	mg/kg	-
	DEHP (Di(2-ethylhexyl)-phthalate)	ND	mg/kg	-
	Sum	ND	mg/kg	PASS
	DNOP (Di-n-octylphthalate)	ND	mg/kg	-
	DIDP (Diisodecylphthalate)	ND	mg/kg	-
	DINP (Di-iso-nonylphthalate)	ND	mg/kg	-
	Sum	ND	mg/kg	PASS
	Overall Conclusion	-	-	PASS

-	Results			Conclusion
Tested Item(s)	Detected Analytes	Conc.	Unit	
1011	DBP (Dibutylphthalate)	ND	mg/kg	-
	BBP (Butylbenzylphthalate)	ND	mg/kg	-
	DEHP (Di(2-ethylhexyl)-phthalate)	ND	mg/kg	-
	Sum	ND	mg/kg	PASS
	DNOP (Di-n-octylphthalate)	ND	mg/kg	-
	DIDP (Diisodecylphthalate)	ND	mg/kg	-
	DINP (Di-iso-nonylphthalate)	ND	mg/kg	-
	Sum	ND	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 C.

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	ND	mg/kg	PASS
	DNOP (Di-n-octylphthalate)	ND	mg/kg	-
	DIDP (Diisodecylphthalate)	ND	mg/kg	-
	DINP (Di-iso-nonylphthalate)	ND	mg/kg	-
	Sum	ND	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)	83.6	mg/kg	PASS
	Sum	83.6	mg/kg	PASS
	DNOP (Di-n-octylphthalate)	ND	mg/kg	-
	DIDP (Diisodecylphthalate)	ND	mg/kg	-
	DINP (Di-iso-nonylphthalate)	ND	mg/kg	-
	Sum	ND	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)	77.1	mg/kg	PASS
	Sum	77.1	mg/kg	PASS
	DNOP (Di-n-octylphthalate)	ND	mg/kg	-
	DIDP (Diisodecylphthalate)	ND	mg/kg	-
	DINP (Di-iso-nonylphthalate)	ND	mg/kg	-
	Sum	ND	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 C.

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)	65.8	mg/kg	PASS
	Sum	65.8	mg/kg	PASS
	DNOP (Di-n-octylphthalate)	ND	mg/kg	-
	DIDP (Diisodecylphthalate)	ND	mg/kg	-
	DINP (Di-iso-nonylphthalate)	ND	mg/kg	-
	Sum	ND	mg/kg	PASS
	Overall Conclusion	-	-	PASS

-	Results			Conclusion
Tested Item(s)	Detected Analytes	Conc.	Unit	
I016	DBP (Dibutylphthalate)	ND	mg/kg	-
	BBP (Butylbenzylphthalate)	ND	mg/kg	-
	DEHP (Di(2-ethylhexyl)-phthalate)	54.2	mg/kg	PASS
	Sum	54.2	mg/kg	PASS
	DNOP (Di-n-octylphthalate)	ND	mg/kg	-
	DIDP (Diisodecylphthalate)	ND	mg/kg	-
	DINP (Di-iso-nonylphthalate)	ND	mg/kg	-
	Sum	ND	mg/kg	PASS
	Overall Conclusion	-	-	PASS

-	Results			Conclusion
Tested Item(s)	Detected Analytes	Conc.	Unit	
I017	DBP (Dibutylphthalate)	ND	mg/kg	-
	BBP (Butylbenzylphthalate)	ND	mg/kg	-
	DEHP (Di(2-ethylhexyl)-phthalate)	61.8	mg/kg	PASS
	Sum	61.8	mg/kg	PASS
	DNOP (Di-n-octylphthalate)	ND	mg/kg	-
	DIDP (Diisodecylphthalate)	ND	mg/kg	-
	DINP (Di-iso-nonylphthalate)	ND	mg/kg	-
	Sum	ND	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 C.

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)

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 71-1 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

List of Polynuclear Aromatic Hydrocarbons:		
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 C

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	-	-	-

- END OF REPORT-