



TEST REPORT



AB-0505-T

72232750156

10-23

LAB LOCATION: TURKEY
LAB NO.: (7223)275-0156
SERVICE TYPE: Regular
DATE IN: October 03, 2023
DATE OUT: October 10, 2023

MATERIAL SUBMITTED : TC TİCARET BAKANLIĞI İSTANBUL GÜMRÜK VE DIŞ
TİCARET BÖLGE MÜDÜRLÜĞÜ İSTANBUL ÜRÜN
GÜVENLİĞİ DENETİMLERİ MÜDÜRLÜĞÜ-1 (Avrupa)
(Attn: Mustafa BİSKİN)

IMPORTER COMPANY : BIGPOINT KIRTASIYE SANAYI VE TİCARET LTD. STI.
MODEL NO : BP740-12
COVER LETTER NO : E-98552271-554.01.01-00089495303
SAMPLE RECORD NO : /
APPLICATION NO : A25256421
SUPPLIER REFERENCE : /
TESTED AGE GRADE : Over 36 M
LABELLED AGE GRADE : Over 36 M
APPLIED AGE GRADE : /
SAMPLE DESCRIPTION : **Sample A: TOY**
BRAND of SAMPLES : /
SUBMITTED CARE : /
INSTRUCTION : /
GENERAL CONCLUSION : **PASS**

C/N GK/GGY

BV CPS Test Laboratuvarları Ltd. Sti. accredited by TÜRKAK under registration number AB-0505-T for TS EN ISO/IEC 17025:2017 as test laboratory. Turkish Accreditation Agency (TURKAK) is a signatory to the European co-operation for Accreditation (EA) Multilateral Agreement (MLA) and to the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement (MRA) for the recognition of test reports.

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SUMMARY OF TEST RESULTS

TEST PERFORMED	PASS	FAIL
EN 71-1: 2014 + A1:2018 Physical and Mechanical Properties* (See Remark for Accreditation Scope)	X	
EN 71-2: 2020 Flammability*	X	
EN 71-3:2019 + A1:2021 Migration of Certain Elements*	X	
EN 71-3:2019 + A1:2021 Migration of Certain Elements Chromium III and Chromium VI Confirmation*	X	
Polycyclic Aromatic Hydrocarbons (PAHs)*	X	
Phthalates*	X	
* TURKAK Accredited- See Appendix A		

*= 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. Information on uncertainty is contained in appendix A on this report.

REMARK:

I. If there are questions or concerns on this report, please contact:

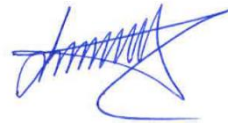
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**Bureau Veritas Consumer Products Services Turkey
BV CPS Test Lab. Ltd. Sti.**



Gaye Gizem Yıldız
Asst. Client Team Lead



Hasan Altıngül
Operation Manager - CS & Support

-Photos of the Submitted Sample-



TEST RESULT

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

Clause	Clause Description	Test Method	RESULT
4	General Requirements	-	Sample 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
4.8e	Splinters	8.12, 8.13	Pass
	WARNINGS, INSTRUCTIONS FOR USE		
7	Ce Mark	-	Present
7	Manufacturer/ Importer Name And Address		Present
7	Product Identification	-	Present
7.1	General	-	Present
7.2	Toys Not Intended For Children Under 36 Months	-	Present

Remark: The methods and clauses indicated with sign “#” are not at the scope of ISO 17025 accreditation.

TEST RESULT

EN 71-2:2020 FLAMMABILITY OF TOYS

Clause	Clause Description	RESULT Sample A
4.1	General Requirements	Pass

Remark: Flammable Gases and Liquids samples which have over 15 ml volume are not at the scope of ISO 17025 accreditation

SAMPLE DESCRIPTION ASSIGNED BY LABORATORY:

Test Item	Sample Description
I001	PURPLE CRAYON
I002	BLACK CRAYON
I003	DARK BLUE CRAYON
I004	BLUE CRAYON
I005	DARK YELLOW CRAYON
I006	LIGHT GREEN CRAYON
I007	BROWN CRAYON
I008	RED CRAYON
I009	ORANGE CRAYON
I010	BEIGE CRAYON
I011	YELLOW CRAYON
I012	WHITE CRAYON
I013	YELLOW PAPER
I014	COLOR OIL PASTEL PRINT
I015	BIGPOINT PRINT PAPER
I016	BLUE PAPER
I017	WHITE BOX PLASTIC
I018	RED DETAIL ON BOX
I019	BLUE WHITE DETAIL ON BOX
I020	WHITE DETAIL ON BOX
I021	ANIMAL PRINT ON BOX
I022	NATURE PRINT ON BOX
I023	RAINBOW INFORMATION PRINT ON BOX
I024	GREEN PRINT ON BOX
I025	CHILDREN PRINT ON BOX
I026	WHITE BLACK DETAIL ON BOX
I027	TRANSPARENT WINDOW
I028	RED BOX MULTICOLORED
I029	YELLOW PAPERS ON CRAYONS MULTICOLORED
I030	RAINBOW %100 SAFE PRINT

TEST RESULT

EN 71-3:2019 + A1:2021 MIGRATION OF CERTAIN ELEMENTS

Test Method : European Standard EN 71-3:2019+A1:2021

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 Item(s)	Unit	Req.	Result				
			I001	I002	I003	I004	I005
Type	-	I	I	I	I	I	I
Parameter	-	-	-	-	-	-	-
Aluminium (Al)	mg/kg	2250	8.29	7.02	8.30	6.08	10.77
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	ND	ND	ND	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	0.08	0.1	0.09	0.06	0.13
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	ND	ND	ND	ND	ND
Manganese (Mn)	mg/kg	1200	ND	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	6.49	5.00	6.27	4.50	8.44
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

Note:

ND = Not detected
 mg/kg = milligram(s) per kilogram
 10 000 mg/kg = 1 %
 Detection Limit (mg/kg) :
 For Type I and Type II - Al : 2 ; Sb : 2 ; As : 0.15 ; Ba : 2 ; B : 2 ; Cd : 0.15 ; Cr III : 0.15 ; Cr VI : 0.005 [0.002] ; Co : 2 ; Cu : 2 ; Pb : 0.5 ; Mn : 2 ; Hg : 0.15 ; Ni : 2 ; Se : 2 ; Sr : 2 ; Sn : 2 ; Organic tin : 0.04 ; Zn : 2
 For Type III - Al : 2 ; Sb : 2 ; As : 2 ; Ba : 2 ; B : 2 ; Cd : 2 ; Cr III : 0.15 ; Cr VI : 0.05 [0.002] ; Co : 2 ; Cu : 2 ; Pb : 2 ; Mn : 2 ; Hg : 2 ; Ni : 2 ; Se : 2 ; Sr : 2 ; Sn : 2 ; Organic tin : 2 ; Zn : 2

“>” = Greater than
 mg/kg = ppm = part(s) per million
 % = percent

Conc. = Concentration
 mcg/sq. m = microgram per square metre

Remark:

TEST RESULT

EN 71-3:2019 + A1:2021 MIGRATION OF CERTAIN ELEMENTS

Test Method : European Standard EN 71-3:2019+A1:2021

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 Item(s)	Unit	Req.	Result			
			I006	I008	I009	I010
Type	-	I	I	I	I	I
Parameter	-	-	-	-	-	-
Aluminium (Al)	mg/kg	2250	6.47	7.04	6.79	4.79
Antimony (Sb)	mg/kg	45	ND	ND	ND	ND
Arsenic (As)	mg/kg	3.8	ND	ND	ND	ND
Barium (Ba)	mg/kg	1500	ND	ND	6.83	3.41
Boron (B)	mg/kg	1200	ND	ND	ND	ND
Cadmium (Cd)	mg/kg	1.3	ND	ND	ND	ND
Chromium III (Cr III)	mg/kg	37.5	0.07	0.08	0.09	0.06
Chromium VI (Cr VI)	mg/kg	0.02	ND	ND	ND	ND
Cobalt (Co)	mg/kg	10.5	ND	ND	ND	ND
Copper (Cu)	mg/kg	622.5	ND	ND	ND	ND
Lead (Pb)	mg/kg	2.0	ND	ND	ND	ND
Manganese (Mn)	mg/kg	1200	ND	ND	ND	ND
Mercury (Hg)	mg/kg	7.5	ND	ND	ND	ND
Nickel (Ni)	mg/kg	75	ND	ND	ND	ND
Selenium (Se)	mg/kg	37.5	ND	ND	ND	ND
Strontium (Sr)	mg/kg	4500	5.30	5.59	6.71	3.95
Tin (Sn)	mg/kg	15000	ND	ND	ND	ND
Organic tin	mg/kg	0.9	ND	ND	ND	ND
Zinc (Zn)	mg/kg	3750	ND	ND	ND	ND
Conclusion	-	-	PASS	PASS	PASS	PASS

Note:

ND = Not detected
 mg/kg = milligram(s) per kilogram
 10 000 mg/kg = 1 %
 Detection Limit (mg/kg) :
 For Type I and Type II - Al : 2 ; Sb : 2 ; As : 0.15 ; Ba : 2 ; B : 2 ; Cd : 0.15 ; Cr III : 0.15 ; Cr VI : 0.005 [0.002] ; Co : 2 ; Cu : 2 ; Pb : 0.5 ; Mn : 2 ; Hg : 0.15 ; Ni : 2 ; Se : 2 ; Sr : 2 ; Sn : 2 ; Organic tin : 0.04 ; Zn : 2
 For Type III - Al : 2 ; Sb : 2 ; As : 2 ; Ba : 2 ; B : 2 ; Cd : 2 ; Cr III : 0.15 ; Cr VI : 0.05 [0.002] ; Co : 2 ; Cu : 2 ; Pb : 2 ; Mn : 2 ; Hg : 2 ; Ni : 2 ; Se : 2 ; Sr : 2 ; Sn : 2 ; Organic tin : 2 ; Zn : 2

“>” = Greater than
 mg/kg = ppm = part(s) per million
 % = percent

Conc. = Concentration
 mcg/sq. m = microgram per square metre

Remark:

TEST RESULT

EN 71-3:2019 + A1:2021 MIGRATION OF CERTAIN ELEMENTS

Test Method : European Standard EN 71-3:2019+A1:2021

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)	-	-	I007
Type	-	I	I
Parameter	-	-	-
Aluminium (Al)	mg/kg	2250	3.01
Antimony (Sb)	mg/kg	45	ND
Arsenic (As)	mg/kg	3.8	ND
Barium (Ba)	mg/kg	1500	ND
Boron (B)	mg/kg	1200	ND
Cadmium (Cd)	mg/kg	1.3	ND
Chromium III (Cr III)	mg/kg	37.5	ND
Chromium VI (Cr VI)	mg/kg	0.02	ND
Cobalt (Co)	mg/kg	10.5	ND
Copper (Cu)	mg/kg	622.5	ND
Lead (Pb)	mg/kg	2.0	ND
Manganese (Mn)	mg/kg	1200	ND
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	2.68
Conclusion	-	-	PASS

Note:

ND = Not detected

">" = Greater than

Conc. = Concentration

mg/kg = milligram(s) per kilogram

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

10 000 mg/kg = 1 %

% = percent

mcg/sq. m = microgram per square metre

Detection Limit (mg/kg) :

For Type I and Type II - Al : 2 ; Sb : 2 ; As : 0.15 ; Ba : 2 ; B : 2 ; Cd : 0.15 ; Cr III : 0.15 ; Cr VI : 0.005 [0.002] ; Co : 2 ; Cu : 2 ; Pb : 0.5 ; Mn : 2 ;

Hg : 0.15 ; Ni : 2 ; Se : 2 ; Sr : 2 ; Sn : 2 ; Organic tin : 0.04 ; Zn : 2

For Type III - Al : 2 ; Sb : 2 ; As : 2 ; Ba : 2 ; B : 2 ; Cd : 2 ; Cr III : 0.15 ; Cr VI : 0.05 [0.002] ; Co : 2 ; Cu : 2 ;

Pb : 2 ; Mn : 2 ; Hg : 2 ; Ni : 2 ; Se : 2 ; Sr : 2 ; Sn : 2 ; Organic tin : 2 ; Zn : 2

Remark:

TEST RESULT

EN 71-3:2019 + A1:2021 MIGRATION OF CERTAIN ELEMENTS

Test Method : European Standard EN 71-3:2019+A1:2021

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 Item(s)	Unit	Req.	Result	
			I011	I012
Type	-	I	I	I
Parameter	-	-	-	-
Aluminium (Al)	mg/kg	2250	6.49	7.47
Antimony (Sb)	mg/kg	45	ND	ND
Arsenic (As)	mg/kg	3.8	ND	ND
Barium (Ba)	mg/kg	1500	ND	ND
Boron (B)	mg/kg	1200	ND	ND
Cadmium (Cd)	mg/kg	1.3	ND	ND
Chromium III (Cr III)	mg/kg	37.5	0.08	0.13
Chromium VI (Cr VI)	mg/kg	0.02	ND	ND
Cobalt (Co)	mg/kg	10.5	ND	ND
Copper (Cu)	mg/kg	622.5	ND	ND
Lead (Pb)	mg/kg	2.0	ND	ND
Manganese (Mn)	mg/kg	1200	ND	ND
Mercury (Hg)	mg/kg	7.5	ND	ND
Nickel (Ni)	mg/kg	75	ND	ND
Selenium (Se)	mg/kg	37.5	ND	ND
Strontium (Sr)	mg/kg	4500	4.56	4.40
Tin (Sn)	mg/kg	15000	ND	ND
Organic tin	mg/kg	0.9	ND	ND
Zinc (Zn)	mg/kg	3750	ND	ND
Conclusion	-	-	PASS	PASS

Note:

ND = Not detected “>” = Greater than Conc. = Concentration
mg/kg = milligram(s) per kilogram mg/kg = ppm = part(s) per million
10 000 mg/kg = 1 % % = percent mcg/sq. m = microgram per square metre
Detection Limit (mg/kg) :
For Type I and Type II - Al : 2 ; Sb : 2 ; As : 0.15 ; Ba : 2 ; B : 2 ; Cd : 0.15 ; Cr III : 0.15 ; Cr VI : 0.005 [0.002] ; Co : 2 ; Cu : 2 ; Pb : 0.5 ; Mn : 2 ; Hg : 0.15 ; Ni : 2 ; Se : 2 ; Sr : 2 ; Sn : 2 ; Organic tin : 0.04 ; Zn : 2
For Type III - Al : 2 ; Sb : 2 ; As : 2 ; Ba : 2 ; B : 2 ; Cd : 2 ; Cr III : 0.15 ; Cr VI : 0.05 [0.002] ; Co : 2 ; Cu : 2 ; Pb : 2 ; Mn : 2 ; Hg : 2 ; Ni : 2 ; Se : 2 ; Sr : 2 ; Sn : 2 ; Organic tin : 2 ; Zn : 2

Remark:

TEST RESULT

EN 71-3:2019 + A1:2021 MIGRATION OF CERTAIN ELEMENTS

Test Method : European Standard EN 71-3:2019+A1:2021

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 Item(s)	Unit	Req.	Result		
			I013	I014	I015
Type	-	I	III	III	III
Parameter	-	-	-	-	-
Aluminium (Al)	mg/kg	2250	24.60	23.24	25.64
Antimony (Sb)	mg/kg	45	ND	ND	ND
Arsenic (As)	mg/kg	3.8	ND	ND	ND
Barium (Ba)	mg/kg	1500	2.06	2.59	2.37
Boron (B)	mg/kg	1200	ND	ND	ND
Cadmium (Cd)	mg/kg	1.3	ND	ND	ND
Chromium III (Cr III)	mg/kg	37.5	0,11	0.11	0.11
Chromium VI (Cr VI)	mg/kg	0.02	ND	ND	ND
Cobalt (Co)	mg/kg	10.5	ND	ND	ND
Copper (Cu)	mg/kg	622.5	ND	ND	ND
Lead (Pb)	mg/kg	2.0	ND	ND	ND
Manganese (Mn)	mg/kg	1200	7.93	8.03	8.03
Mercury (Hg)	mg/kg	7.5	ND	ND	ND
Nickel (Ni)	mg/kg	75	ND	ND	ND
Selenium (Se)	mg/kg	37.5	ND	ND	ND
Strontium (Sr)	mg/kg	4500	36.43	40.37	40.77
Tin (Sn)	mg/kg	15000	ND	ND	ND
Organic tin	mg/kg	0.9	ND	ND	ND
Zinc (Zn)	mg/kg	3750	ND	ND	ND
Conclusion	-	-	PASS	PASS	PASS

Note:

ND = Not detected

mg/kg = milligram(s) per kilogram

10 000 mg/kg = 1 %

Detection Limit (mg/kg) :

For Type I and Type II - Al : 2 ; Sb : 2 ; As : 0.15 ; Ba : 2 ; B : 2 ; Cd : 0.15 ; Cr III : 0.15 ; Cr VI : 0.005 [0.002] ; Co : 2 ; Cu : 2 ; Pb : 0.5 ; Mn : 2 ;

Hg : 0.15 ; Ni : 2 ; Se : 2 ; Sr : 2 ; Sn : 2 ; Organic tin : 0.04 ; Zn : 2

For Type III - Al : 2 ; Sb : 2 ; As : 2 ; Ba : 2 ; B : 2 ; Cd : 2 ; Cr III : 0.15 ; Cr VI : 0.05 [0.002] ; Co : 2 ; Cu : 2 ; Pb : 2 ; Mn : 2 ; Hg : 2 ; Ni : 2 ; Se : 2 ; Sr : 2 ; Sn : 2 ; Organic tin : 2 ; Zn : 2

">" = Greater than

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

% = percent

Conc. = Concentration

mcg/sq. m = microgram per square metre

Remark:

TEST RESULT

EN 71-3:2019 + A1:2021 MIGRATION OF CERTAIN ELEMENTS

Test Method : European Standard EN 71-3:2019+A1:2021

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 Item(s)	Unit	Req.	Result					
			I016	I017	I18	I019	I020	I021
Type	-	I	III	III	III	III	III	III
Parameter	-	-	-	-	-	-	-	-
Aluminium (Al)	mg/kg	2250	24.29	ND	87.20	80.18	73.34	67.20
Antimony (Sb)	mg/kg	45	ND	ND	ND	ND	ND	ND
Arsenic (As)	mg/kg	3.8	ND	ND	ND	ND	ND	ND
Barium (Ba)	mg/kg	1500	2.39	ND	ND	ND	ND	ND
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	0.11	ND	0.52	0.49	0.5	0.46
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	2.0	ND	ND	ND	ND	ND	ND
Manganese (Mn)	mg/kg	1200	6.72	ND	ND	ND	ND	ND
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	34.17	ND	17.29	15.53	18.39	16.86
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	ND	ND	ND	ND	ND
Conclusion	-	-	PASS	PASS	PASS	PASS	PASS	PASS

Note:

ND = Not detected ">" = Greater than Conc. = Concentration
mg/kg = milligram(s) per kilogram mg/kg = ppm = part(s) per million
10 000 mg/kg = 1 % % = percent mcg/sq. m = microgram per square metre
Detection Limit (mg/kg) :
For Type I and Type II - Al : 2 ; Sb : 2 ; As : 0.15 ; Ba : 2 ; B : 2 ; Cd : 0.15 ; Cr III : 0.15 ; Cr VI : 0.005 [0.002] ; Co : 2 ; Cu : 2 ; Pb : 0.5 ; Mn : 2 ;
Hg : 0.15 ; Ni : 2 ; Se : 2 ; Sr : 2 ; Sn : 2 ; Organic tin : 0.04 ; Zn : 2
For Type III - Al : 2 ; Sb : 2 ; As : 2 ; Ba : 2 ; B : 2 ; Cd : 2 ; Cr III : 0.15 ; Cr VI : 0.05 [0.002] ; Co : 2 ; Cu : 2 ;
Pb : 2 ; Mn : 2 ; Hg : 2 ; Ni : 2 ; Se : 2 ; Sr : 2 ; Sn : 2 ; Organic tin : 2 ; Zn : 2

Remark:

TEST RESULT

EN 71-3:2019 + A1:2021 MIGRATION OF CERTAIN ELEMENTS

Test Method : European Standard EN 71-3:2019+A1:2021

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 Item(s)	Unit	Req.	Result					
			I022	I023	I024	I025	I026	I027
Type	-	I	III	III	III	III	III	III
Parameter	-	-	-	-	-	-	-	-
Aluminium (Al)	mg/kg	2250	69.04	69.67	72.02	69.62	62.78	ND
Antimony (Sb)	mg/kg	45	ND	ND	ND	ND	ND	ND
Arsenic (As)	mg/kg	3.8	ND	ND	ND	ND	ND	ND
Barium (Ba)	mg/kg	1500	ND	ND	ND	ND	ND	ND
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	0.48	0.45	0.07	0.48	0.46	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	2.0	ND	ND	ND	ND	ND	ND
Manganese (Mn)	mg/kg	1200	ND	ND	ND	ND	ND	ND
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	15.67	15.30	2.37	16.49	15.47	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	ND	ND	ND	ND	ND
Conclusion	-	-	PASS	PASS	PASS	PASS	PASS	PASS

Note:

ND = Not detected
 mg/kg = milligram(s) per kilogram
 10 000 mg/kg = 1 %
 Detection Limit (mg/kg) :
 For Type I and Type II - Al : 2 ; Sb : 2 ; As : 0.15 ; Ba : 2 ; B : 2 ; Cd : 0.15 ; Cr III : 0.15 ; Cr VI : 0.005 [0.002] ; Co : 2 ; Cu : 2 ; Pb : 0.5 ; Mn : 2 ; Hg : 0.15 ; Ni : 2 ; Se : 2 ; Sr : 2 ; Sn : 2 ; Organic tin : 0.04 ; Zn : 2
 For Type III - Al : 2 ; Sb : 2 ; As : 2 ; Ba : 2 ; B : 2 ; Cd : 2 ; Cr III : 0.15 ; Cr VI : 0.05 [0.002] ; Co : 2 ; Cu : 2 ; Pb : 2 ; Mn : 2 ; Hg : 2 ; Ni : 2 ; Se : 2 ; Sr : 2 ; Sn : 2 ; Organic tin : 2 ; Zn : 2

“>” = Greater than
 mg/kg = ppm = part(s) per million
 % = percent

Conc. = Concentration
 mcg/sq. m = microgram per square metre

Remark:

TEST RESULT

EN 71-3:2019 + A1:2021 MIGRATION OF CERTAIN ELEMENTS CHROMIUM III AND CHROMIUM VI CONFIRMATION

Test Method : European Standard EN 71-3:2019+A1:2021

Se 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	I015
Type	-	III	III	III	III
Parameter	-	-	-	-	-
Chromium VI (Cr VI)	mg/kg	0.053	ND	ND	ND
Conclusion	-	-	PASS	PASS	PASS

	Unit	Req.	Result		
Test Item(s)	-	-	I016	I018	I019
Type	-	III	III	III	III
Parameter	-	-	-	-	-
Chromium VI (Cr VI)	mg/kg	0.053	ND	ND	ND
Conclusion	-	-	PASS	PASS	PASS

	Unit	Req.	Result		
Test Item(s)	-	-	I020	I021	I022
Type	-	III	III	III	III
Parameter	-	-	-	-	-
Chromium VI (Cr VI)	mg/kg	0.053	ND	ND	ND
Conclusion	-	-	PASS	PASS	PASS

	Unit	Req.	Result			
Test Item(s)	-	-	I023	I024	I025	I026
Type	-	III	III	III	III	III
Parameter	-	-	-	-	-	-
Chromium VI (Cr VI)	mg/kg	0.053	ND	ND	ND	ND
Conclusion	-	-	PASS	PASS	PASS	PASS

Note:

ND = Not detected
 mg/kg = milligram(s) per kilogram
 10 000 mg/kg = 1 %
 Detection Limit (mg/kg) :
 For Type I and Type II - Cr VI : 0.005 [0.002]
 For Type III - Cr VI : 0.05 [0.002]

“>” = Greater than
 mg/kg = ppm = part(s) per million
 % = percent

Conc. = Concentration
 mcg/sq. m = microgram per square metre

Remark:

TEST RESULT

EN 71-3:2019 + A1:2021 MIGRATION OF CERTAIN ELEMENTS CHROMIUM III AND CHROMIUM VI CONFIRMATION

Test Method : European Standard EN 71-3:2019+A1:2021

Se 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	-	I	I	I	I
Parameter	-	-	-	-	-
Chromium VI (Cr VI)	mg/kg	0.02	ND	ND	ND
Conclusion	-	-	PASS	PASS	PASS

	Unit	Req.	Result		
Test Item(s)	-	-	I004	I005	I006
Type	-	I	I	I	I
Parameter	-	-	-	-	-
Chromium VI (Cr VI)	mg/kg	0.02	ND	ND	ND
Conclusion	-	-	PASS	PASS	PASS

	Unit	Req.	Result		
Test Item(s)	-	-	I008	I009	I010
Type	-	I	I	I	I
Parameter	-	-	-	-	-
Chromium VI (Cr VI)	mg/kg	0.02	ND	ND	ND
Conclusion	-	-	PASS	PASS	PASS

	Unit	Req.	Result	
Test Item(s)	-	-	I011	I012
Type	-	I	I	I
Parameter	-	-	-	-
Chromium VI (Cr VI)	mg/kg	0.02	ND	ND
Conclusion	-	-	PASS	PASS

Note:

ND = Not detected

mg/kg = milligram(s) per kilogram

10 000 mg/kg = 1 %

Detection Limit (mg/kg) :

For Type I and Type II - Cr VI : 0.005 [0.002]

For Type III - Cr VI : 0.05 [0.002]

">" = Greater than

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

% = percent

Conc. = Concentration

mcg/sq. m = microgram per square metre

Remark:

TEST RESULT

POLYCYCLIC AROMATIC HYDROCARBONS (PAHS)

Test Method : All materials: AFPS GS 2019
Quantification analysis by GC-MS

Maximum Limit:	Each of 8 PAHs < 0.5 mg/kg
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Tested Item(s)	Result			Conclusion
	Detected Analyte(s)	Conc.	Unit	
I001+I002+I003	/	ND	mg/kg	PASS
I004+I005+I006	/	ND	mg/kg	PASS
I007+I008+I009	/	ND	mg/kg	PASS
I010+I011+ I012	/	ND	mg/kg	PASS
I017+I027+I028	/	ND	mg/kg	PASS
I030	/	ND	mg/kg	PASS

ND = Not detected
mg/kg = milligram(s) per kilogram
10 000 mg/kg = 1 %
Detection Limit (mg/kg) - 0.1 each

“>” = Greater than
mg/kg = ppm = part(s) per million
% = percent

Conc. = Concentration

Remark:

- The list of Polycyclic Aromatic Hydrocarbons (PAHs) is summarized in table of Appendix.

TEST RESULT

PHTHALATES

Test Method : CPSC-CH-C1001-09.3
Quantification analysis by GC-MS or LC-DAD-MS

Maximum Limit:	Sum of (DBP, BBP, DEHP): Less than 1000 mg/kg Sum of (DNOP, DIDP, DINP): Less than 1000 mg/kg			
Tested Item(s)	Result			Conclusion
	Detected Analyte(s)	Conc.	Unit	
I001+I002+I003	/	ND	mg/kg	PASS
I004+I005+I006	/	ND	mg/kg	PASS
I007+I008+I009	/	ND	mg/kg	PASS
I010+I011+I012	/	ND	mg/kg	PASS
I017+I027+I028	/	ND	mg/kg	PASS

Note:

ND = Not detected
mg/kg = milligram(s) per kilogram
10 000 mg/kg = 1 %
Detection Limit (mg/kg) - 50 each

“>” = Greater than
mg/kg = ppm = part(s) per million
% = percent

Conc. = Concentration

Remark:

- The list of Phthalates is summarized in table of Appendix.

APPENDIX A –LIST OF MEASUREMENT UNCERTAINTIES		
TEST NAME	STANDARD NAME	MEASUREMENT UNCERTAINTY
Migration Of Certain Elements	European Standard EN 71 Part 3: 2019, Section 8.	± % 26,78
Phthalates	CPSC-CH-C1001-09.03	± %16,53
Polycyclic Aromatic Hydrocarbons (PAHs)	AFPS GS 2019	± % 19.44

APPENDIX

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

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

-END OF REPORT-