TEST REPORT

MID OCEAN BRANDS B.V.

Technical Report: **(3225)150-0243** June 10,2025
Date Received: June 03,2025 Page 1 of 16

MID OCEAN BRANDS B.V.
UNIT 711-716,7/F.,TOWER A,83 KING LAM STREET,CHEUNG SHA WAN,KWLOON,HONG KONG

SAMPLE INFORMATION:

Sample Description:	COTTON BAG WITH COLOURING PENS	**Sample Quantity:**	N/A
Vendor:	111041	**Style No(s):**	MO8450
Manufacturer:	N/A	**SKN/SKU No.:**	N/A
Buyer:	N/A	**PO No.:**	N/A
Labeled Age Grade:	NOT PROVIDED	**Ref #:**	N/A
Appropriate Age Grade:	N/A	**Country of Origin:**	CHINA
Client Specified Age Grade:	OVER 3 YEARS OF AGE	**Assortment No.:**	N/A
Tested Age Grade:	OVER 3 YEARS OF AGE	**Country of Destination:**	EUROPE
UPC Code:	N/A	**Color :**	N/A

EXECUTIVE SUMMARY:

TEST REQUESTED	CONCLUSION
The mechanical and physical properties requirements of the tested subclauses of the European Standard, “Safety of toys”, EN71: Part 1:2014+A1:2018, clauses 1-6.	PASS See note 2
The flammability requirements of the European Standard "Safety of Toys”, EN 71: Part 2: 2020	PASS
Aromatic Amines Content from Azo Colorants - Regulation (EC) No. 1907/2006 Annex XVII Entry 43, Points 1 & 2	PASS
Polycyclic Aromatic Hydrocarbons (PAHs) Content – Regulation (EC) No. 1907/2006 Annex XVII Entry 50, Point 5	PASS
Phthalates Content – Reference to regulation (EC) No. 1907/2006 Annex XVII Entry 51 & 52	PASS
Total Cadmium Content in Plastic Material - 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	PASS
Total Cd Content & As Client's requirement	PASS
Migration of Certain Elements - EN71-3:2019+A1:2021	PASS
Benzene Content in Toys or Parts of Toys - European Regulation (EC) No. 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) with Amendment up to EU No. 412/2012, Annex XVII, Entry 5, Point 1	PASS
Migration of Certain Elements - EN 71-3:2019+A2:2024	PASS
COLOURFASTNESS TO RUBBING	PASS

Note:
1.The sample is tested as “ Over 3 years of age ” per the client’s request .
2.No relevant packaging was provided with the submitted sample(s), consequently, evaluation of the labeling requirements of this European Standard, “Safety of toys”, EN71: Part 1:2014+A1:2018, clauses 7, was not conducted.

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APPROPRIATE AGE GRADE DETERMINATION

The Appropriate Age Grade is determined with reference to the EN71: Part 1:2014+A1:2018, European Union Guidance Documents, CEN ISO/TR 8124-8:2016 Safety of toys - Part 8: Age determination guidelines and Age Determination Guidelines: Relating Children's Ages to Toy Characteristics and Play Behavior, September, 2002
Note : The most stringent age grade from the Labeled Age Grade and the Appropriate Age Grade will be used for testing. Note : If the client does not specify an age grade for testing or request Bureau Veritas Consumer Products Services, Inc. to determine an appropriate age grade, the labeled age grade will be used for testing.

EXPLANATION OF THE ABBREVIATIONS FOR PART 1, 2

Symbol	Explanation
NM	The samples are NOT IN COMPLIANCE WITH the requirement of this Subclause
M	The samples are IN COMPLIANCE WITH the requirement of this Subclause
N/A	Not Applicable
NR	Not Requested
NE	Not Evaluated
NP	None Present
P	Present
R	Refer to Comment Section of this report

Symbol	Language Present	Symbol	Language Present	Symbol	Language Present
B	Belgian language	G	German language	PR	Portuguese language
D	Danish language	GR	Greek language	S	Spanish language
E	English language	H	Dutch language	SD	Swedish language
F	Finnish language	I	Italian language	SZ	Swiss language
FR	French language	N	Norwegian language		

MECHANICAL & PHYSICAL PROPERTIES
(EN 71: PART 1:2014+A1 :2018)

Subclause	Requirement	Result
4.1	Material cleanliness	M
4.2	Assembly	N/A
4.3	Flexible plastic sheeting	N/A
4.4	Toy Bags	N/A
4.5	Glass	N/A
4.6	Expanding materials	N/A
4.7 & 7.6	Edges	M
4.8 & 7.6	Points and metallic wires	M
4.8e	Splinters	M
4.9	Protruding parts	N/A
4.10.1	Folding and sliding mechanisms	N/A
4.10.2	Driving mechanisms	N/A
4.10.3	Hinges	N/A
4.10.4	Springs	N/A
4.11	Mouth actuated toys and other toys intended to be put in the mouth	N/A
4.12 & 7.3	Balloons	N/A
4.13 & 7.9	Cord of toy kites and other flying toys	N/A
4.14.1	Toys which a child can enter	N/A
4.14.2 & 7.8	Masks and helmets	N/A
4.15.1	Toys propelled by child	
4.15.1.2 & 7.10.1 & 7.10.2 & 7.10.3 & 7.10.4 & 7.16	Toys propelled by child – Instructions for use	N/A
4.15.1.3	Toys propelled by child – Strength	N/A
4.15.1.4	Toys propelled by child – Stability	N/A
4.15.1.5	Toys propelled by child – Braking	N/A
4.15.1.6	Toys propelled by child - Transmission	N/A
4.15.1.7	Toys propelled by child – insertion mark	N/A
4.15.1.8	Electrically-driven ride-on toys	N/A
4.15.2	Toy bicycles	
4.15.2.2 & 7.15	Toy bicycles – Warnings and instructions for use	N/A
4.15.2.3	Toy bicycles – Braking	N/A
4.15.3 & 7.16 & 7.19	Rocking horses and similar toys	N/A
4.15.4 & 7.16	Toys not propelled by child	N/A
4.15.5 & 7.18	Toy scooters	N/A
4.16	Heavy immobile toys	N/A
4.17.2	All projectiles	N/A
4.17.3 & 7.7	Projectile toys with stored energy	N/A
4.17.4 & 7.26	Certain projectiles toys without stored energy	N/A
4.18 & 7.4	Aquatic toys and inflatable toys	N/A
4.19 & 7.13 & 7.14	Percussion caps	N/A
*4.20.2.1- 4.20.2.8, 4.20.2.10, 4.20.2.12	Acoustics	N/A

MECHANICAL & PHYSICAL PROPERTIES
(EN 71: PART 1:2014+A1 :2018)

Subclause	Requirement	Result
4.20.2.9, 4.20.2.11 & 7.14	Acoustics – percussion toys & cap-firing toys	N/A
4.21	Toys containing a non-electrical heat source	N/A
4.22 & 7.2	Small balls	N/A
4.23	Magnet	
4.23.2 a, b & c	Toy other than magnetic / electrical experimental sets intended for children over 8 years	N/A
4.23.3 & 7.20	Magnetic / electrical experimental sets intended for children over 8 years	N/A
4.24	Yo-yo ball	N/A
4.25	Toys attached to food	N/A
4.26	Toy Disguise Costumes	N/A
4.27.1	Flying toys – General	N/A
4.27.2 & 7.25.1	Rotors and propellers on flying toys	N/A
4.27.3 & 7.25.2	Rotors and propellers on remote controlled flying toys	N/A
	FOR TOYS INTENDED FOR CHILDREN UNDER 36 MONTHS	
5.1	General	N/A
5.1a	Small parts – as received	N/A
5.1b	Small parts, sharp points, sharp edges – after tests	N/A
5.1c	Cross section <2mm metal points & wires	N/A
5.1e	Toys contain glue	N/A
5.1f	Casing of toys	N/A
5.2	Fillings, coverings and seams	N/A
5.3	Adhesion of plastic sheeting	N/A
5.4.2	Cords and chains in toys intended for children under 18 months	N/A
5.4.3 & 7.22	Cords and chains in toys intended for children of 18 months or over but under 36 months	N/A
5.4.4	Fixed loops, tangled loops and nooses	N/A
5.4.5	Cords and chains on pull along toys	N/A
5.4.6 & 7.21	Electrical cables	N/A
5.4.7	Cross-sectional dimension of certain cords	N/A
5.4.8	Self-retracting cords	N/A
5.4.9 & 7.11 & 7.23	Toys attached to or intended to be strung across a cradle, cot or perambulator	N/A
5.5 & 7.12	Liquid filled toys	N/A
5.6	Electrically driven toys	N/A
5.7	Glass and porcelain	N/A
5.8	Shape and size	N/A
5.9 & 7.17	Monofilament fibres	N/A
5.10	Small balls	N/A
5.11	Play figures	N/A
5.12	Hemispheric shaped toys	N/A
5.13	Suction cups	N/A
5.14	Straps intended to be worn fully or partially around the neck	N/A
5.15 & 7.24	Sledges with cords for pulling	N/A
6	Packaging	N/A

MECHANICAL & PHYSICAL PROPERTIES
(EN 71: PART 1:2014+A1 :2018)

Subclause	Requirement	Result
	WARNINGS, INSTRUCTIONS FOR USE	
7.1	General	SEE NOTE 2
7.2	Toys not intended for children under 36 months	SEE NOTE 2
7.5	Functional toys	SEE NOTE 2

M = Meet NM = Not Meet N/A = Not Applicable R = Refer to Comment Section

REQUIREMENTS & TEST METHODS CROSS REFERENCE TABLE FOR PART 1

Sub-clause	Test Method	Sub-clause	Test Method	Sub-clause	Test Method	Sub-clause	Test Method
4.3	8.25.1	4.14.2	8.3, 8.4.2.1, 8.5, 8.7, 8.8, 8.11, 8.12	4.17.3	8.24.1	5.3	8.4.2.1, 8.25
4.5	8.5, 8.7, 8.11, 8.12	4.15.1.3	8.11, 8.12, 8.21, 8.22	4.17.4	8.24.2	5.4	8.20, 8.36, 8.38, 8.39, 8.40
4.6	8.2, 8.3, 8.4.2.1, 8.5, 8.7, 8.8, 8.14	4.15.1.4	8.23.1	4.18	8.2, 8.3, 8.4.2.1	5.5	8.15
4.7	8.11	4.15.1.5	8.26.1	4.20	8.28	5.6	8.29
4.8	8.12, 8.13	4.15.1.8	8.29	4.21	8.30	5.8	8.16
4.9	8.4.2.3, 8.11, 8.12	4.15.2.4	8.26.2	4.22	8.3, 8.4.2.1, 8.5, 8.6, 8.7, 8.8, 8.32	5.10	8.3, 8.4.2.1, 8.5, 8.6, 8.7, 8.8, 8.9, 8.32
4.10.1	8.18.2, 8.18.3	4.15.3	8.21, 8.23.1	4.23	8.2, 8.3, 8.4.2.1, 8.4.2.2, 8.5, 8.6, 8.7, 8.8, 8.34, 8.35	5.11	8.33
4.10.2	8.5, 8.6, 8.7, 8.11, 8.12	4.15.4	8.21, 8.23.1	4.24	8.37	5.12	8.3, 8.4.2.1, 8.5, 8.6, 8.7, 8.8, 8.9,
4.11	8.2, 8.3, 8.4.2.1, 8.9, 8.17	4.15.5	8.11, 8.12, 8.21, 8.22, 8.26.3, 8.27	4.25	8.2, 8.3, 8.4.2.1, 8.5, 8.7, 8.8, 8.32.1	5.13	8.3, 8.4.2.1, 8.5, 8.7, 8.8, 8.32
4.13	8.19	4.16	8.23.2	5.1	8.2, 8.3, 8.4.2.1, 8.5, 8.7, 8.8, 8.9, 8.11, 8.12		
4.14.1	8.31.1, 8.31.2	4.17.1	8.4.2.3				

FLAMMABILITY (EN 71 PART 2: 2020)

Subclause	Requirement	Result
4.1	Cellulose nitrate	NP
4.1	Highly flammable solids	NP
4.1	Surface flash on a piled surface	N/A
4.1	Flammable gases	N/A
4.1	Extremely flammable liquids, highly flammable liquids, flammable liquids and flammable gels	N/A
4.2	Toys to be worn on the head	N/A
4.3	Toy disguise costumes and toys intended to be worn by child in play	N/A
4.3	warning on product and packaging (10 - 30 mm/s)	N/A
4.4	Toys intended to be entered by a child	N/A
4.4	warning on product and packaging (10 – 30 mm/s)	N/A
4.5	Soft-filled toys	N/A

REQUIREMENTS & TEST METHODS CROSS REFERENCE TABLE FOR PART 2

Sub-clause	Test Method	Sub-clause	Test Method	Sub-clause	Test Method	Sub-clause	Test Method
4.2.2	5.2	4.2.4	5.3	4.3	5.4	4.5	5.5
4.2.3	5.3	4.2.5	5.4	4.4	5.4	-	-

Tested Component(s) Breakdown List

Test Item	Description	Location	Style
1	Green fabric	-	-
2	Red plastic	-	-
3	Yellow plastic	-	-
4	Green plastic	-	-
5	Blue plastic	-	-
6	Purple plastic	-	-
7	Black plastic	-	-
8	Red ink	-	-
9	Yellow ink	-	-
10	Green ink	-	-
11	Blue ink	-	-
12	Purple ink	-	-
13	White fiber	Refill	-
14	White fabric with black print	-	-

Aromatic Amines Content from Azo Colorants - Regulation (EC) No. 1907/2006 Annex XVII Entry 43, Points 1 & 2

Test Method : I: For textile and others: EN ISO 14362-1:2017.
II: For leather: ISO 17234-1: 2020.
III: For textile and others: EN ISO 14362-3:2017 ; For leather: ISO 17234-2: 2011

Maximum Limit:	**30mg/kg**

Tested Item(s)	Test Method	Result		Unit	Conclusion
		Detected Analyte(s)	Conc.		
1 + 14	I-Colorant extraction	ND	ND	mg/kg	PASS
1 + 14	I-Direct reduction	ND	ND	mg/kg	PASS

Note / Key:
ND = Not Detected
mg/kg = milligram per kilogram
Detection Limit (mg/kg):Each 5

Remark:
1. *Azo colorants that are able to form p-aminoazobenzene, generate aniline and 1,4-phenylenediamine under the condition of test method I. If aniline and/or 1,4-phenylenediamine is not found by test method I, test result for 4-aminoazobenzene (CAS no. 60-09-3) is considered as “Not detected”. Otherwise, the test method III will be employed to verify the presence of 4-aminoazobenzene.
2. The list of amines in azo dyestuff is summarized in table of Appendix.

List of Aromatic Amines Content From Azo Colorants - Regulation (EC) No. 1907/2006 Annex XVII Entry 43, Points 1 & 2					
No.	**Name of Analytes**	**CAS-No.**	**No.**	**Name of Analytes**	**CAS-No.**

1	o-Toluidine	95-53-4	12	4,4`-Oxydianiline	101-80-4
2	o-Anisidine	90-04-0	13	Benzidine	92-87-5
3	4-Chloroaniline	106-47-8	14	4,4`-Methylenedianiline	101-77-9
4	p-cresidine	120-71-8	15	4,4`-Methylenedi-o-toluidine	838-88-0
5	2,4,5-Trimethylaniline	137-17-7	16	3,3`-Dimethylbenzidine	119-93-7
6	4-Chloro-o-toluidine	95-69-2	17	4,4`-Thiodianiline	139-65-1
7	4-Methyl-m-phenylenediamine	95-80-7	18	3,3`-Dichlorobenzidine	91-94-1
8	4-Methoxy-m-phenylenediamine	615-05-4	19	4,4`-Methylene-bis-(2-chloro-aniline)	101-14-4
9	2-Naphthylamine	91-59-8	20	3,3`-Dimethoxybenzidine	119-90-4
10	4-Aminobiphenyl	92-67-1	21	o-Aminoazotoluene	97-56-3
11	*4-Aminoazobenzene	60-09-3	22	5-Nitro-o-toluidine	99-55-8

Polycyclic Aromatic Hydrocarbons (PAHs) Content – Regulation (EC) No. 1907/2006 Annex XVII Entry 50, Point 5

Test Method : With reference to test method mentioned in German AfPS GS 2019:01 PAK.

Parameter	**Unit**	**Result**			**Maximum Allowable Limit**
		2 + 3 + 4	5 + 6 + 7	14	
Benzo (a) anthracene	mg/kg	ND	ND	ND	0.5
Chrysene	mg/kg	ND	ND	ND	0.5
Benzo (b) fluoranthene	mg/kg	ND	ND	ND	0.5
Benzo (j) fluoranthene	mg/kg	ND	ND	ND	0.5
Benzo (k) fluoranthene	mg/kg	ND	ND	ND	0.5
Benzo (e) pyrene	mg/kg	ND	ND	ND	0.5
Benzo (a) pyrene	mg/kg	ND	ND	ND	0.5
Dibenzo (a,h) anthracene	mg/kg	ND	ND	ND	0.5
Conclusion	-	PASS	PASS	PASS	-

Note / Key :
ND = Not detected mg/kg = milligram(s) per kilogram = ppm = part(s) per million
Detection Limit (mg/kg): For individual testing - Each of the listed PAHs(mg/kg) : 0.2
For composite testing - Each of the listed PAHs(mg/kg) : 0.1

Phthalates Content – Reference to regulation (EC) No. 1907/2006 Annex XVII Entry 51 & 52

Test Method : Reference to EN 14372:2004.

Parameter	**CAS No.**	**Unit**	**Maximum Allowable Limit**	**Result**		
	-	-	-	2 + 3 + 4	5 + 6 + 7	14
A. For toys and childcare articles						
DBP	84-74-2	%	<0.1	ND	ND	ND
BBP	85-68-7	%	<0.1	ND	ND	ND

DEHP	117-81-7	%	<0.1	ND	ND	ND
DiBP	84-69-5	%	<0.1	ND	ND	ND
B. Additional requirements for toys and childcare articles, which can be placed in mouth by the children (See remark)						
DnOP	117-84-0	%	<0.1	ND	ND	ND
DINP	28553-12-0&68515-48-0	%	<0.1	ND	ND	ND
DIDP	26761-40-0 & 68515-49-1	%	<0.1	ND	ND	ND
Sum of DBP, BBP, DEHP, DIBP		%	<0.1	ND	ND	ND
Sum of DNOP, DIDP, DINP		%	<0.1	ND	ND	ND
Conclusion	-	-	-	PASS	PASS	PASS

Note / Key: ND = Not Detected Conc. = Concentration
Detection Limit (%): Each 0.005 % = percentage

Remark:

The list of phthalates is summarized in table of Appendix

List of Phthalates Content – Reference To Regulation (EC) No. 1907/2006 Annex XVII Entry 51 & 52					
No.	**Name of Analytes**	**CAS-No.**	**No.**	**Name of Analytes**	**CAS-No.**
1	DBP	84-74-2	5	DINP	28553-12-0&68515-48-0
2	BBP	85-68-7	6	DIDP	26761-40-0 & 68515-49-1
3	DEHP	117-81-7	7	DiBP	84-69-5
4	DnOP	117-84-0	-	-	-

Total Cadmium Content in Plastic Material - 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 Method : EN 1122: 2001, Method B

Maximum Limit:	**100 mg/kg**

Test Item(s)	Result	Unit	Conclusion
2 + 3 + 4	ND	mg/kg	PASS
5 + 6 + 7	ND	mg/kg	PASS

Note / Key:
mg/kg = milligram per kilogram
Detection Limit (mg/kg): 10
ND = Not Detected
MDL = Method Detection Limit

Total Cd Content & As Client's requirement

Test Method : The sample is comminuted and digested with acid mixtures, then analyzed by AAS technique or ICP-OES .

Parameter	**Unit**	**MDL**	**Result**				**Maximum Allowable Limit**
			1 + 14	8 + 9 + 10	11 + 12	13	
Cadmium (Cd)	mg/kg	10	ND	ND	ND	ND	100
Conclusion	-	-	PASS	PASS	PASS	PASS	-

Note / Key:
ND = Not Detected
mg/kg = milligram per kilogram
MDL = Method Detection Limit

Migration of Certain Elements - EN71-3:2019+A1:2021

Test Method:European Standard EN71-3:2019+A1:2021

Analyte	Limit: Type III	Result (mg/kg)				
		Sample ID				
		1	2	3	4	5
Boron (B)	15000	<1500	<1500	<1500	<1500	<1500
Aluminium (Al)	28130	<2813	<2813	<2813	<2813	<2813
Chromium III (Cr III)	460	<46	<46	<46	<46	<46
Chromium VI (Cr VI)	0.053	<0.02	<0.02	<0.02	<0.02	<0.02
Manganese (Mn)	15000	<1500	<1500	<1500	<1500	<1500
Cobalt (Co)	130	<13	<13	<13	<13	<13
Nickel (Ni)	930	<93	<93	<93	<93	<93
Copper (Cu)	7700	<770	<770	<770	<770	<770
Zinc (Zn)	46000	<4600	<4600	<4600	<4600	<4600
Arsenic (As)	47	<4.7	<4.7	<4.7	<4.7	<4.7
Selenium (Se)	460	<46	<46	<46	<46	<46
Strontium (Sr)	56000	<5600	<5600	<5600	<5600	<5600
Cadmium (Cd)	17	<1.7	<1.7	<1.7	<1.7	<1.7
Tin (Sn)	180000	<18000	<18000	<18000	<18000	<18000
Organic tin	12	<1.2	<1.2	<1.2	<1.2	<1.2
Antimony (Sb)	560	<56	<56	<56	<56	<56
Barium (Ba)	18750	<1875	<1875	<1875	<1875	<1875
Mercury (Hg)	94	<9.4	<9.4	<9.4	<9.4	<9.4
Lead (Pb)	23	<2.3	<2.3	<2.3	<2.3	<2.3
Conclusion		PASS	PASS	PASS	PASS	PASS

Analyte	Limit: Type III	Result (mg/kg)			
		Sample ID			
		6	7	13	14
Boron (B)	15000	<1500	<1500	<1500	<1500
Aluminium (Al)	28130	<2813	<2813	<2813	<2813

Chromium III (Cr III)	460	<46	<46	<46	<46
Chromium VI (Cr VI)	0.053	<0.02	<0.02	<0.02	<0.02
Manganese (Mn)	15000	<1500	<1500	<1500	<1500
Cobalt (Co)	130	<13	<13	<13	<13
Nickel (Ni)	930	<93	<93	<93	<93
Copper (Cu)	7700	<770	<770	<770	<770
Zinc (Zn)	46000	<4600	<4600	<4600	<4600
Arsenic (As)	47	<4.7	<4.7	<4.7	<4.7
Selenium (Se)	460	<46	<46	<46	<46
Strontium (Sr)	56000	<5600	<5600	<5600	<5600
Cadmium (Cd)	17	<1.7	<1.7	<1.7	<1.7
Tin (Sn)	180000	<18000	<18000	<18000	<18000
Organic tin	12	<1.2	<1.2	<1.2	<1.2
Antimony (Sb)	560	<56	<56	<56	<56
Barium (Ba)	18750	<1875	<1875	<1875	<1875
Mercury (Hg)	94	<9.4	<9.4	<9.4	<9.4
Lead (Pb)	23	<2.3	<2.3	<2.3	<2.3
Conclusion		PASS	PASS	PASS	PASS

Analyte	Limit: Type II	Result (mg/kg)				
		Sample ID				
		8	9	10	11	12
Boron (B)	300	<30	<30	<30	<30	<30
Aluminium (Al)	560	<56	<56	<56	<56	<56
Chromium III (Cr III)	9.4	<0.94	<0.94	<0.94	<0.94	<0.94
Chromium VI (Cr VI)	0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Manganese (Mn)	300	<30	<30	<30	<30	<30
Cobalt (Co)	2.6	<0.26	<0.26	<0.26	<0.26	<0.26
Nickel (Ni)	18.8	<1.88	<1.88	<1.88	<1.88	<1.88
Copper (Cu)	156	<15.6	<15.6	<15.6	<15.6	<15.6
Zinc (Zn)	938	<93.8	<93.8	<93.8	<93.8	<93.8
Arsenic (As)	0.9	<0.09	<0.09	<0.09	<0.09	<0.09
Selenium (Se)	9.4	<0.94	<0.94	<0.94	<0.94	<0.94
Strontium (Sr)	1125	<112.5	<112.5	<112.5	<112.5	<112.5
Cadmium (Cd)	0.3	<0.03	<0.03	<0.03	<0.03	<0.03
Tin (Sn)	3750	<375	<375	<375	<375	<375
Organic tin	0.2	<0.02	<0.02	<0.02	<0.02	<0.02
Antimony (Sb)	11.3	1.87	1.72	1.39	1.61	1.48
Barium (Ba)	375	<37.5	<37.5	<37.5	<37.5	<37.5
Mercury (Hg)	1.9	<0.19	<0.19	<0.19	<0.19	<0.19
Lead (Pb)	0.5	<0.05	<0.05	<0.05	<0.05	<0.05
Conclusion		PASS	PASS	PASS	PASS	PASS

Note / Key:
ND = Not Detected mg/kg = milligram per kilogram

Remark :

- Test Item(s) was (were) tested according to European Standard EN 71-3: 2019 + A1: 2021, Section 8.
- 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 pH measured shall be reported after migration if it was outside the range of 1.1 to 1.3.
- European Standard EN 71 Part 3: 2019 + A1: 2021 is currently harmonized under European Parliament and Council Directive 2009/48/EC and will be superseded when European Standard EN 71 Part 3: 2019 + A2: 2024 is harmonized.

Benzene Content in Toys or Parts of Toys - European Regulation (EC) No. 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) with Amendment up to EU No. 412/2012, Annex XVII, Entry 5, Point 1

Test Method : Analysis by Headspace Gas Chromatograph Mass Spectrometer (HS-GC-MS).

Parameter	Unit	MDL	Result				Maximum Allowable Limit
			1 + 14	2 + 3 + 4	5 + 6 + 7	8	
Benzene	mg/kg	5	ND	ND	ND	ND	5
Conclusion	-	-	PASS	PASS	PASS	PASS	-

Parameter	Unit	MDL	Result				Maximum Allowable Limit
			9	10	11	12	
Benzene	mg/kg	5	ND	ND	ND	ND	5
Conclusion	-	-	PASS	PASS	PASS	PASS	-

Parameter	Unit	MDL	Result	Maximum Allowable Limit
			13	
Benzene	mg/kg	5	ND	5
Conclusion	-	-	PASS	-

Note / Key: ND = Not detected ">" = Greater than %= percent 10000mg/kg=1%
mg/kg = milligram(s) per kilogram = ppm = part(s) per million EU No.=European Commission Regulation number
Detection Limit (mg/kg) :5

Migration of Certain Elements - EN 71-3:2019+A2:2024

Test Method:EN 71-3:2019+A2:2024

Analyte	Limit: Type III	Result (mg/kg)				
		Sample ID				
		1	2	3	4	5
Boron (B)	15000	<1500	<1500	<1500	<1500	<1500
Aluminium (Al)	28130	<2813	<2813	<2813	<2813	<2813
Chromium III (Cr III)	460	<46	<46	<46	<46	<46
Chromium VI (Cr VI)	0.053	<0.02	<0.02	<0.02	<0.02	<0.02
Manganese (Mn)	15000	<1500	<1500	<1500	<1500	<1500

Cobalt (Co)	130	<13	<13	<13	<13	<13
Nickel (Ni)	930	<93	<93	<93	<93	<93
Copper (Cu)	7700	<770	<770	<770	<770	<770
Zinc (Zn)	46000	<4600	<4600	<4600	<4600	<4600
Arsenic (As)	47	<4.7	<4.7	<4.7	<4.7	<4.7
Selenium (Se)	460	<46	<46	<46	<46	<46
Strontium (Sr)	56000	<5600	<5600	<5600	<5600	<5600
Cadmium (Cd)	17	<1.7	<1.7	<1.7	<1.7	<1.7
Tin (Sn)	180000	<18000	<18000	<18000	<18000	<18000
Organic tin	12	<1.2	<1.2	<1.2	<1.2	<1.2
Antimony (Sb)	560	<56	<56	<56	<56	<56
Barium (Ba)	18750	<1875	<1875	<1875	<1875	<1875
Mercury (Hg)	94	<9.4	<9.4	<9.4	<9.4	<9.4
Lead (Pb)	23	<2.3	<2.3	<2.3	<2.3	<2.3
Conclusion		PASS	PASS	PASS	PASS	PASS

Analyte	Limit: Type III	Result (mg/kg)			
		Sample ID			
		6	7	13	14
Boron (B)	15000	<1500	<1500	<1500	<1500
Aluminium (Al)	28130	<2813	<2813	<2813	<2813
Chromium III (Cr III)	460	<46	<46	<46	<46
Chromium VI (Cr VI)	0.053	<0.02	<0.02	<0.02	<0.02
Manganese (Mn)	15000	<1500	<1500	<1500	<1500
Cobalt (Co)	130	<13	<13	<13	<13
Nickel (Ni)	930	<93	<93	<93	<93
Copper (Cu)	7700	<770	<770	<770	<770
Zinc (Zn)	46000	<4600	<4600	<4600	<4600
Arsenic (As)	47	<4.7	<4.7	<4.7	<4.7
Selenium (Se)	460	<46	<46	<46	<46
Strontium (Sr)	56000	<5600	<5600	<5600	<5600
Cadmium (Cd)	17	<1.7	<1.7	<1.7	<1.7
Tin (Sn)	180000	<18000	<18000	<18000	<18000
Organic tin	12	<1.2	<1.2	<1.2	<1.2
Antimony (Sb)	560	<56	<56	<56	<56
Barium (Ba)	18750	<1875	<1875	<1875	<1875
Mercury (Hg)	94	<9.4	<9.4	<9.4	<9.4
Lead (Pb)	23	<2.3	<2.3	<2.3	<2.3
Conclusion		PASS	PASS	PASS	PASS

Analyte	Limit: Type II	Result (mg/kg)				
		Sample ID				
		8	9	10	11	12
Boron (B)	300	<30	<30	<30	<30	<30
Aluminium (Al)	560	<56	<56	<56	<56	<56
Chromium III (Cr III)	9.4	<0.94	<0.94	<0.94	<0.94	<0.94
Chromium VI (Cr VI)	0.005	<0.005	<0.005	<0.005	<0.005	<0.005

Manganese (Mn)	300	<30	<30	<30	<30	<30
Cobalt (Co)	2.6	<0.26	<0.26	<0.26	<0.26	<0.26
Nickel (Ni)	18.8	<1.88	<1.88	<1.88	<1.88	<1.88
Copper (Cu)	156	<15.6	<15.6	<15.6	<15.6	<15.6
Zinc (Zn)	938	<93.8	<93.8	<93.8	<93.8	<93.8
Arsenic (As)	0.9	<0.09	<0.09	<0.09	<0.09	<0.09
Selenium (Se)	9.4	<0.94	<0.94	<0.94	<0.94	<0.94
Strontium (Sr)	1125	<112.5	<112.5	<112.5	<112.5	<112.5
Cadmium (Cd)	0.3	<0.03	<0.03	<0.03	<0.03	<0.03
Tin (Sn)	3750	<375	<375	<375	<375	<375
Organic tin	0.2	<0.02	<0.02	<0.02	<0.02	<0.02
Antimony (Sb)	11.3	1.87	1.72	1.39	1.61	1.48
Barium (Ba)	375	<37.5	<37.5	<37.5	<37.5	<37.5
Mercury (Hg)	1.9	<0.19	<0.19	<0.19	<0.19	<0.19
Lead (Pb)	0.5	<0.05	<0.05	<0.05	<0.05	<0.05
Conclusion		PASS	PASS	PASS	PASS	PASS

Key(s): Type I = Dry, brittle, powder-like or pliable toy material(s)

Type II = Liquid or sticky toy material(s) Type III = Scraped-off toy material(s)

Remark(s) :
- 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 pH measured shall be reported after migration if it was outside the range of 1.1 to 1.3.
- European Standard EN 71 Part 3: 2019 + A1: 2021 is currently harmonized under European Parliament and Council Directive 2009/48/EC and will be superseded when European Standard EN 71-3: 2019 + A2: 2024 is harmonized.

COLOURFASTNESS TO RUBBING(EN ISO 105-X12:2016)

	1	14	Limit
DRY			
LENGTHWISE	4-5	3-4	2-3
WIDTHWISE	/	3-4	2-3
WET			
LENGTHWISE	4-5	2-3	2-3
WIDTHWISE	/	2-3	2-3
Conclusion	PASS	PASS	-

COLOURFASTNESS RATING

GRADE 5	NEGLIGIBLE OR NO CHANGE OR STAINING
GRADE 4	SLIGHTLY CHANGED OR STAINED
GRADE 3	NOTICEABLY CHANGED OR STAINED
GRADE 2	CONSIDERABLY CHANGED OR STAINED
GRADE 1	MUCH CHANGED OR STAINED

SAMPLE REFERENCE PHOTO:

-- END OF REPORT --