



TEST REPORT

MID OCEAN BRANDS B.V.

Technical Report: (3223)347-0277

Date Received:

December 13, 2023

January 12, 2024

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MID OCEAN BRANDS B.V.
7/F., KINGS TOWER, 111 KING LAM STREET, CHEUNG SHA
WAN, KOWLOON, HONG KONG

SAMPLE INFORMATION:

Sample Description:	BACKPACK W/5PCS MARKERS	Sample Quantity:	N/A
Vendor:	111041	Style No.(s):	MO9207
Manufacturer:		SKN/SKU No.:	N/A
Buyer:	N/A	PO No.:	N/A
Labeled Age Grade:	NOT PRESENT	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:	N/A
UPC Code:	N/A	Color:	N/A

Above sample information was provided and confirmed by customers, BV is not responsible for its accuracy or completeness.

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 1-7.	PASS
The flammability requirements of the European Standard "Safety of Toys", EN 71: Part 2: 2020	PASS
Labeling requirements of "CE marking, manufacturer/ Importer name and address, and product identification" under "Directive 2009/48/EC Safety of Toy.	PASS
Migration of Certain Elements - EN71-3:2019+A1:2021	PASS
Aromatic Amines Content from Azo Colorants - Regulation (EC) No. 1907/2006 Annex XVII Entry 43, Points 1 & 2	PASS
Phthalates Content – Reference to regulation (EC) No. 1907/2006 Annex XVII Entry 51 & 52	PASS
Total Cd Content & As Applicant's requirement	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 Cadmium Content in Paints on Painted Article - European Parliament and Council Regulation (EC) No. 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) with its Latest Amendment, Annex XVII, Entry 23	PASS
Polycyclic Aromatic Hydrocarbons (PAHs) Content – Regulation (EC) No. 1907/2006 Annex XVII Entry 50, Point 5	PASS
Benzene Content - Reference to Regulation (EC) No. 1907/2006 Annex XVII Entry 5, Point 3	PASS
COLOURFASTNESS TO RUBBING	PASS

Bureau Veritas Testing Technical Service (Zhejiang) Co., Ltd.
1F West 1st East, 7F East, 8F, Building 5
No. 60 Qingsi Road, Ningbo, Zhejiang, China
Tel: 86-574-87970030, Fax: 86-574-87970036
website: cps.bureauveritas.com

This report is governed by, and incorporates by reference, the Conditions of Testing as posted at the date of issuance of this report at <http://www.bureauveritas.com/home/about-us/our-business/cps/about-us/terms-conditions/> and is intended for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. Measurement uncertainty is only provided upon request for accredited tests. Statements of conformity are based on simple acceptance criteria without taking measurement uncertainty into account, unless otherwise requested in writing. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence or if you require measurement uncertainty; provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.



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Note: The sample is tested as "Over 3 years of age" per the client's request .
Samples are provided by customers.
The tested part of the sample was specified by client.
The composite testing was performed as per client's request.
The test conclusion was given based on the results of tested part.
The above result of test item 2-13 is copied from item 2-13 of (3223)269-0191 dated on October 27, 2023.

REMARK

If there are questions or concerns on this report, please contact the following persons:

Customer service

Ms.Lulu Zhang/Ms. Ashe Xi
(0574) 87091319/(0574) 87091115
lulu.b.zhang@bureauveritas.com
ashe.xi@bureauveritas.com

BUREAU VERITAS TESTING TECHNICAL SERVICE (ZHEJIANG) CO.,LTD

PREPARED BY :

Mary Huang

Mary Huang

Kobe Chen seb Wang

Kobe Chen
LAB SUPERVISOR
Seb Wang
OPERATION MANAGER(HARDLINE AND TOY DIVISION)

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 projectile 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



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

Subclause	Requirement	Result
	WARNINGS, INSTRUCTIONS FOR USE	
7.1	General	M
7.2	Toys not intended for children under 36 months	M
7.5	Functional toys	N/A

2009/48/EC General Labeling Requirement

Requirement	Result
CE Mark	M
Manufacturer/ Importer name and address	M
Product Identification	M

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	White fabric with black coating	-	-
2	Red plastic	-	-
3	Orange plastic	-	-
4	Yellow plastic	-	-
5	Green plastic	-	-
6	Blue plastic	-	-
7	White plastic	-	-
8	Red ink	-	-
9	Orange ink	-	-
10	Yellow ink	-	-
11	Green ink	-	-
12	Blue ink	-	-
13	White fiber	Pen head	-
14	Black soft plastic	-	-
15	Blue fabric	-	-
16	Blue coating	On fabric	-
17	White leatheroid	-	-
18	Blue plastic	Zipper teeth	-
19	Blue fabric	Zipper fabric	-
20	Black tape	-	-
21	Black plastic	Buckle	-
22	Black soft plastic	port	-

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

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

Analyte	Limit: (mg/kg)	Result (mg/kg)				
		Sample ID				
	Type III	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



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

Analyte	Limit: (mg/kg)	Result (mg/kg)				
		Sample ID				
	Type II	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	<1.13	2.42	1.17	1.20	2.03
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	0.059	<0.05	0.101	0.056
Conclusion		PASS	PASS	PASS	PASS	PASS



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Analyte	Limit: Type III	Result (mg/kg)			
		Sample ID			
		14	15	16	17
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



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Analyte	Limit: Type III	Result (mg/kg)				
		Sample ID				
		18	19	20	21	22
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

Note / Key:

Req. = Requirement 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 is currently harmonized under European Parliament and Council Directive 2009/48/EC and will be superseded when European Standard EN 71 Part 3: 2019 + A1: 2021 is harmonized.
 - The received sample(s) contained accessible component(s) of less than 10 milligrams by weight on one single sample, therefore such component(s) was (were) not subject to migration of certain elements of European Standard, "Safety of Toys, EN 71 Part 3: 2019 + A1: 2021", as specified in Section 7.1 - Selection of test portions.
 - * denotes as result(s) was (were) verified by :
- For organic tin content - Test method with reference to European Standard EN 71-3: 2019 + A1: 2021 and reported as tributyltin (TBT) cation.
- For Cr VI content - In house ion chromatography analysis.

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
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Tested Item(s)	Test Method	Result		Unit	Conclusion
		Detected Analyte(s)	Conc.		
1	I	ND	ND	mg/kg	PASS
15 + 19 + 20	I	ND	ND	mg/kg	PASS

Note / Key:

ND = Not Detected mg/kg = milligram per kilogram Detection Limit (mg/kg): Each 10

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 aromatic amines in azo dyestuff is summarized in table of Appendix.

List of Aromatic Amines in Azo Dyestuff:					
No.	Name of Analytes	CAS-No.	No.	Name of Analytes	CAS-No.
1	4-Aminodiphenyl	92-67-1	12	3,3'-Dimethyl-4,4'-diaminodiphenylmethane	838-88-0
2	Benzidine	92-87-5	13	p-Chloroaniline	106-47-8
3	4-Chloro-o-Toluidine	95-69-2	14	p-Cresidine	120-71-8
4	2-Naphthylamine	91-59-8	15	4,4'-Methylene-bis-(2-chloroaniline)	101-14-4
5	o-Aminoazotoluene	97-56-3	16	4,4'-Oxydianiline	101-80-4
6	2-Amino-4-nitrotoluene	99-55-8	17	4,4'-Thiodianiline	139-65-1
7	2,4-Diaminoanisole	615-05-4	18	2,4-Toluenediamine	95-80-7
8	4,4'-Diaminodiphenylmethane	101-77-9	19	o-Toluidine	95-53-4
9	3,3'-Dichlorobenzidine	91-94-1	20	2,4,5-Trimethylaniline	137-17-7
10	3,3'-Dimethoxybenzidine (o-Dianisidine)	119-90-4	21	o-Anisidine	90-04-0
11	3,3'-Dimethylbenzidine (o-Tolidine)	119-93-7	22	*p-Aminoazobenzene (4-Amino-azobenzene)	60-09-3

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

Test Method : Reference to EN 14372:2004.

Parameter	Unit	Result				Maximum Allowable Limit
		1	2 + 3 + 4	5 + 6 + 7	13	
A. For toys and childcare articles	-	-	-	-	-	-
DBP	mg/kg	ND	ND	ND	ND	-
BBP	mg/kg	ND	ND	ND	ND	-
DEHP	mg/kg	ND	ND	ND	ND	-
DiBP	mg/kg	ND	ND	ND	ND	-
B. Additional requirements for toys and childcare articles, which can be placed in mouth by the children (See remark)	-	-	-	-	-	-
DnOP	mg/kg	ND	ND	ND	ND	-
DINP	mg/kg	ND	ND	ND	ND	-
DIDP	mg/kg	ND	ND	ND	ND	-
Sum of DBP, BBP, DEHP, DiBP	mg/kg	ND	ND	ND	ND	1000
Sum of DNOP, DIDP, DINP	mg/kg	ND	ND	ND	ND	1000
Conclusion	-	PASS	PASS	PASS	PASS	-

Parameter	Unit	Result			Maximum Allowable Limit
		14 + 17 + 22	16	18 + 21	
A. For toys and childcare articles	-	-	-	-	-
DBP	mg/kg	ND	ND	ND	-
BBP	mg/kg	ND	ND	ND	-
DEHP	mg/kg	ND	ND	ND	-
DiBP	mg/kg	ND	ND	ND	-
B. Additional requirements for toys and childcare articles, which can be placed in mouth by the children (See remark)	-	-	-	-	-
DnOP	mg/kg	ND	ND	ND	-
DINP	mg/kg	ND	ND	ND	-
DIDP	mg/kg	ND	ND	ND	-



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Sum of DBP, BBP, DEHP, DIBP	mg/kg	ND	ND	ND	1000
Sum of DNOP, DIDP, DINP	mg/kg	ND	ND	ND	1000
Conclusion	-	PASS	PASS	PASS	-

Note / Key:

ND = Not Detected

Conc. = Concentration

Detection Limit (mg/kg): Each 50

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	Dibutyl phthalate (DBP)	84-74-2	5	Di-iso-nonyl phthalate (DINP)	28553-12-0 0&68515-48-0
2	Butylbenzylphthalate (BBP)	85-68-7	6	Di-iso-decyl phthalate (DIDP)	26761-40-0 & 68515-49-1
3	Di-2-ethylhexyl phthalate (DEHP)	117-81-7	7	Diisobutyl phthalate	84-69-5
4	Di-n-octyl phthalate (DNOP)	117-84-0	-	-	-

Total Cd Content & As Applicant's requirement

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

Parameter	Unit	Result				Maximum Allowable Limit
		8 + 9 + 10	11 + 12	13	15 + 19 + 20	
Cadmium (Cd)	mg/kg	<10	<10	<10	<10	100
Conclusion	-	PASS	PASS	PASS	PASS	-

Note / Key:

ND = Not Detected

mg/kg = milligram per kilogram

MDL = Method Detection Limit

Detection Limit (mg/kg): 10

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
 The sample is digested with acid, then analyzed by AAS.

Maximum Limit:	100 mg/kg
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Test Item(s)	Result	Unit	Conclusion
1	ND	mg/kg	PASS
2 +3 + 4	ND	mg/kg	PASS
5 + 6+ 7	ND	mg/kg	PASS
14 + 17 + 22	ND	mg/kg	PASS
18 + 21	ND	mg/kg	PASS

Note / Key:

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

Total Cadmium Content in Paints on Painted Article - European Parliament and Council Regulation (EC) No. 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) with its Latest Amendment, Annex XVII, Entry 23

Test Method : The sample is comminuted and digested with acid mixtures, then analyzed by ICP-AES technique

Maximum Limit:	1000 mg/kg
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Test Item(s)	Result	Unit	Conclusion
16	ND	mg/kg	PASS

Note / Key:

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

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
		1	2 + 3 + 4	5 + 6 + 7	13	
Benzo (a) anthracene	mg/kg	ND	ND	ND	ND	1
Chrysene	mg/kg	ND	ND	ND	ND	1
Benzo (b) fluoranthene	mg/kg	ND	ND	ND	ND	1
Benzo (j) fluoranthene	mg/kg	ND	ND	ND	ND	1
Benzo (k) fluoranthene	mg/kg	ND	ND	ND	ND	1
Benzo (e) pyrene	mg/kg	ND	ND	ND	ND	1
Benzo (a) pyrene	mg/kg	ND	ND	ND	ND	1
Dibenzo (a,h) anthracene	mg/kg	ND	ND	ND	ND	1
Conclusion	-	PASS	PASS	PASS	PASS	-

Parameter	Unit	Result			Maximum Allowable Limit
		14 + 17 + 22	16	18 + 21	
Benzo (a) anthracene	mg/kg	ND	ND	ND	1
Chrysene	mg/kg	ND	ND	ND	1
Benzo (b) fluoranthene	mg/kg	ND	ND	ND	1
Benzo (j) fluoranthene	mg/kg	ND	ND	ND	1
Benzo (k) fluoranthene	mg/kg	ND	ND	ND	1
Benzo (e) pyrene	mg/kg	ND	ND	ND	1
Benzo (a) pyrene	mg/kg	ND	ND	ND	1
Dibenzo (a,h) anthracene	mg/kg	ND	ND	ND	1
Conclusion	-	PASS	PASS	PASS	-

Note / Key:

ND = Not detected

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

For individual testing - Each of the listed PAHs(mg/kg) : 0.2

Detection Limit (mg/kg):

For composite testing - Each of the listed PAHs(mg/kg) : 0.1

Benzene Content -Reference to Regulation (EC) No. 1907/2006 Annex XVII Entry 5, Point 3

Test Method : Organic solvent extraction and analysis by Gas Chromatograph Mass Spectrometer (GC-MS).

Parameter	Unit	Result				Maximum Allowable Limit
		1	2 + 3 + 4	5 + 6 + 7	8	
Benzene	mg/kg	ND	ND	ND	ND	3000
Conclusion	-	PASS	PASS	PASS	PASS	-

Parameter	Unit	Result				Maximum Allowable Limit
		9	10	11	12	
Benzene	mg/kg	ND	ND	ND	ND	3000
Conclusion	-	PASS	PASS	PASS	PASS	-

Parameter	Unit	Result				Maximum Allowable Limit
		13	14 + 17 + 22	16	18 + 21	
Benzene	mg/kg	ND	ND	ND	ND	3000
Conclusion	-	PASS	PASS	PASS	PASS	-

Note / Key:
 ND = Not Detected

Detection Limit (mg/kg) : 5

	<u>Test Result</u>	<u>Requirement</u>
<u>COLOURFASTNESS TO RUBBING</u> (EN ISO 105-X12:2016)		
	1	
LENGTH		
DRY	4-5	2-3
WET	4-5	2-3
WIDTH		
DRY	4-5	2-3
WET	4-5	2-3
	15	
LENGTH		
DRY	4-5	2-3
WET	4-5	2-3
WIDTH		
DRY	4-5	2-3
WET	4-5	2-3
	19	
DRY	4-5	2-3
WET	4-5	2-3
	20	
DRY	4	2-3
WET	4-5	2-3



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SAMPLE REFERENCE PHOTO:



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