

CONSUMER PRODUCTS SERVICES DIVISION

# LIFETIME PLASTIC PRODUCTS LTD

(8519)357-0656(Revision) June 03, 2020 **Technical Report:** December 24, 2019 Date Received: Page 1 of 16

**RECKY MA** LIFETIME PLASTIC PRODUCTS LTD BUILDING NO.1-5, NO.568 SHANBIAN ROAD DONGFU TOWN HAICANG DISTRICT XIAMEN, FUJIAN 361027 **CHINA** 

Sample Description: LIFETIME 72.9\*72.9\*84.4 INCH PLAYHOUSE

Vendor: Sample Size: Manufacturer:

90980 LIFETIME PLASTIC PRODUCTS Style No(s): LTD

Buyer: N/A SKN/SKU No.: N/A Labeled Age Grade: **AGES 3 TO 10** PO No.: N/A Appropriate Age Grade: **NOT REQUESTED** Ref#: N/A Client Specified Age **NOT SPECIFIED** Country of Origin: **CHINA** 

Grade:

Tested Age Grade: FROM 3 TO 10 YEARS OF AGE Assortment No.:

UPC Code: 081483820927 Item#: 90980

Country of Destination: EU Test Starting Date: **DECEMBER 24, 2019** Test Finished Date: **JANUARY 21, 2020** 

N/A



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#### (\*)EXECUTIVE SUMMARY:

#### The sample(s) MEET the following requirement(s):

- Labeling requirements of "CE marking, manufacturer/ Importer name and address, and product identification" under "Directive 2009/48/EC Safety of Toy".
- 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.
- The flammability requirements of the European Standard "Safety of Toys", EN 71: Part 2: 2011+ A1: 2014.
- The migration of certain elements in Category III Scraped off toy material requirements of the European Standard, "Safety of Toys", EN 71 Part 3: 2019.

Note: The received sample(s) contained accessible component(s) of less than 10 milligrams by weight on one single sample, therefore such component(s) was not subject to migration of certain elements of European Standard, "Safety of Toys", EN 71 Part 3: 2019, as specified in Clause 7.1 - Selection of test portions.

Note: This report is amendment of and supersedes the previous (8519)357-0656 dated January 21, 2020.

BUREAU VERITAS SHENZHEN CO.,LTD

Choy Hon Kwong, Adams Senior Manager Analytical Department

AC/ HK / su

BUREAU VERITAS SHENZHEN CO., LTD.

Hon Yin Kan Manager

Toys And Juvenile Products Department

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#### **RESULTS:**

#### APPROPRIATE AGE GRADE DETERMINATION

The Appropriate Age Grade is determined with reference to the EN71: Part 1: 2014 +A1:2018, CEN ISO/TR 8124-8:2016 Safety of toys - Part 8: Age Determination Guidelines prepared by Technical Committee CEN/TC 52 and Age Grade Determination Guidelines of the Consumer Product Safety Commission (CPSC).

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 & 6

Symbol	Explanation							
NM	The sample(s) DOES NOT MEET the requirement of this Subclause							
M	The sample(s) MEET	the require	ment of this Subclause					
N/A	Not Applicable							
NR	Not Requested							
NE	Not Evaluated							
NT	Not Tested							
NP	None Present							
Р	Present							
R	Refer to Comment Se	ction of this	report					
Symbol	Language Present	Symbol	Language Present	Symbol	Language Present			
В	Belgian language	G	German language	PR	Portuguese language			
D	Danish language GR Greek language S Spanish language							
Е	English language H Dutch language SD Swedish language							
F	Finnish language	I	Italian language	SZ	Swiss language			
FR	French language	N	Norwegian language					



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# **RESULTS:**

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

Subclause	Requirement	Result
4.1	Material cleanliness	М
4.2	Assembly	М
4.3	Flexible plastic sheeting	NA
4.4	Toy Bags	NA
4.5	Glass	NA
4.6	Expanding materials	NA
4.7 & 7.6	Edges	М
4.8 & 7.6	Points and metallic wires	М
4.8e	Splinters	М
4.9	Protruding parts	NA
4.10.1	Folding and sliding mechanisms	NA
4.10.2	Driving mechanisms	NA
4.10.3	Hinges	М
4.10.4	Springs	NA
4.11	Mouth actuated toys and other toys intended to be put in the mouth	М
4.12 & 7.3	Balloons	NA
4.13 & 7.9	Cord of toy kites and other flying toys	NA
4.14.1	Toys which a child can enter	М
4.14.2 & 7.8	Masks and helmets	NA
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	NA
4.15.1.3	Toys propelled by child – Strength	NA
4.15.1.4	Toys propelled by child – Stability	NA
4.15.1.5	Toys propelled by child – Braking	NA
4.15.1.6	Toys propelled by child - Transmission	NA
4.15.1.7	Toys propelled by child – insertion mark	NA
4.15.1.8	Electrically-driven ride-on toys	NA
4.15.2	Toy bicycles	
4.15.2.2 & 7.15	Toy bicycles – Warnings and instructions for use	NA
4.15.2.3	Toy bicycles – Braking	NA
4.15.3 & 7.16 & 7.19	Rocking horses and similar toys	NA
4.15.4 & 7.16	Toys not propelled by child	NA
4.15.5 & 7.18	Toy scooters	NA
4.16	Heavy immobile toys	М
4.17.2	All projectiles	NA
4.17.3 & 7.7	Projectile toys with stored energy	NA



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# **RESULTS:**

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

Subclause	Requirement	Result
4.17.4 & 7.26	Certain projectiles toys without stored energy	NA
4.18 & 7.4	Aquatic toys and inflatable toys	NA
4.19 & 7.13 & 7.14	Percussion caps	NA
4.20.2.1- 4.20.2.8, 4.20.2.10, 4.20.2.12	Acoustics	М
4.20.2.9, 4.20.2.11 & 7.14	Acoustics – percussion toys & cap-firing toys	NA
4.21	Toys containing a non-electrical heat source	NA
4.22 & 7.2	Small balls	NA
4.23	Magnet	
4.23.2 a, b & c	Toy other than magnetic / electrical experimental sets intended for children over 8 years	NA
4.23.3 & 7.20	Magnetic / electrical experimental sets intended for children over 8 years	NA
4.24	Yo-yo ball	NA
4.25	Toys attached to food	NA
4.26	Toy Disguise Costumes	NA
4.27.1	Flying toys – General	NA
4.27.2 & 7.25.1	Rotors and propellers on flying toys	NA
4.27.3 & 7.25.2	Rotors and propellers on remote controlled flying toys	NA
	FOR TOYS INTENDED FOR CHILDREN UNDER 36 MONTHS	
5.1	General	NA
5.1a	Small parts – as received	NA
5.1b	Small parts, sharp points, sharp edges – after tests	NA
5.1c	Cross section <2mm metal points & wires	NA
5.1e	Toys contain glue	NA
5.1f	Casing of toys	NA
5.2	Fillings, coverings and seams	NA
5.3	Adhesion of plastic sheeting	NA
5.4.2	Cords and chains in toys intended for children under 18 months	NA
5.4.3 & 7.22	Cords and chains in toys intended for children of 18 months or over but under 36 months	NA
5.4.4	Fixed loops, tangled loops and nooses	NA
5.4.5	Cords and chains on pull along toys	NA
5.4.6 & 7.21	Electrical cables	NA
5.4.7	Cross-sectional dimension of certain cords	NA
5.4.8	Self-retracting cords	NA
5.4.9 & 7.11 & 7.23	Toys attached to or intended to be strung across a cradle, cot or perambulator	NA



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# **RESULTS:**

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

Subclause	Requirement	Result
5.5 & 7.12	Liquid filled toys	NA
5.6	Electrically driven toys	NA
5.7	Glass and porcelain	NA
5.8	Shape and size	NA
5.9 & 7.17	Monofilament fibres	NA
5.10	Small balls	NA
5.11	Play figures	NA
5.12	Hemispheric shaped toys	NA
5.13	Suction cups	NA
5.14	Straps intended to be worn fully or partially around the neck	NA
5.15 & 7.24	Sledges with cords for pulling	NA
6	Packaging	М
	WARNINGS, INSTRUCTIONS FOR USE	
7.1	General	М
7.2	Toys not intended for children under 36 months	М
7.5	Functional toys	NA

# 2009/48/EC GENERAL LABELING REQUIREMENT

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

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



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# **RESULTS:**

# FLAMMABILITY (EN 71 PART 2: 2011 + A1: 2014)

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

# 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	-	-



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# **RESULTS:**

# MIGRATION OF CERTAIN ELEMENTS (European Standard EN 71 Part 3: 2019)

Test Method: European Standard EN 71 Part 3: 2019, Section 9.

Category III - Scraped off toy material Class:

Sample Identity	Color	Location	Style
A.	Disable sections	Support of sunshade, screw, logo plate &	
	Black coating	fixture	
B.	Deep red coating	Pan	
C.	All coating	Plastic sticker	
D.	Offwhite plastic	Block	
E.	Dull blue plastic	Block	
F.	Deep brown plastic	Block	
G.	Light aqua blue plastic	Block	
Н.	Dull black plastic	Doorknob , top of roof & axis of door	
l.	Grey plastic	Doorbell	
J.	Light green plastic	Plate & cutting board	
K.	Leaf green plastic	Guava	
 L.	Flat white plastic	Guava	
M.	Light yellow plastic	Pear	
N.	Off white plastic	Pear	
0.	Brown plastic	Kiwi	
P.	Flat green plastic	Kiwi	
Q.	Purple plastic	Grape	
R.	Dull green plastic	Grape	
S.	Red plastic	Strawberry	
 T.	Soft green plastic	Strawberry	
U.	Orange plastic	Orange	
V.	Light orange plastic	Orange	
W.	Deep green plastic	Orange	
X.	Matt grey plastic	Tap & knob	
Υ.	Soft grey plastic	Cookwares	
Z.	Magenta plastic	Cookwares	
AA.	Bright white plastic	Knife	
AB.	Light blue plastic	Knife	
AC.	Dull white plastic	Plate	
AD.	Blue plastic	Tablewares	
AE.	Orange yellow plastic	Cup	
AF.	Matt black plastic	Oven	
AG.	Clear laminated multicolor printed white		
ΛG.	paper sticker	Paper sticker	
AH.	Soft white plastic sticker	Plastic sticker	
Al.	Flat black plastic	Tie of sunshade	
AJ.	Multicolor knitted fabric / black thread	Sunshade	
AK.	Soft black fabric	Rim of sunshade	
AL.	Off black webbing	Webbing	
AM.	Matt white hook & loop fastener sticker	Velcro	
AIVI.	I Matt wille Hook & loop lasterer sticker	VEICIO	l



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# **RESULTS:**

# MIGRATION OF CERTAIN ELEMENTS (European Standard EN 71 Part 3: 2019)

Test Method: European Standard EN 71 Part 3: 2019, Section 9.

Category III - Scraped off toy material Class:

	Requirement		Result (mg/kg)						
Analyte	(mg/kg)	Sample ID							
	Category III	A.	B.	C.	D.	E.	F.		
Aluminium (Al)	70000	63	53	34	22	21	9		
Arsenic (As)	47	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2		
Boron (B)	15000	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2		
Barium (Ba)	18750	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2		
Cadmium (Cd)	17	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2		
Cobalt (Co)	130	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2		
Chromium III (Cr III)	460	0.070	0.096	0.083	0.064	0.065			
Chromium VI (Cr VI)	0.053	#LT	#LT	#LT	#LT	#LT	LT 0.050		
Chronillani VI (Ci VI)	0.055	0.0020	0.0020	0.0020	0.0020	0.0020			
Copper (Cu)	7700	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2		
Mercury (Hg)	94	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2		
Manganese (Mn)	15000	2	2	LT 2	LT 2	LT 2	LT 2		
Nickel (Ni)	930	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2		
Lead (Pb)	23	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2		
Antimony (Sb)	560	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2		
Selenium (Se)	460	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2		
Tin (Sn)	180000	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2		
Organic tin	12	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2		
Strontium (Sr)	56000	2	LT 2	LT 2	39	25	LT 2		
Zinc (Zn)	46000	14	11	8	6	6	4		
Mass of trace am	nount (gram)	0.0291	0.0362	0.0298					
Conclus		Pass	Pass	Pass	Pass	Pass	Pass		



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# **RESULTS:**

# MIGRATION OF CERTAIN ELEMENTS (European Standard EN 71 Part 3: 2019)

Test Method: European Standard EN 71 Part 3: 2019, Section 9.

Category III - Scraped off toy material Class:

	Requirement		Result (mg/kg)						
Analyte	(mg/kg)			Samp	ole ID				
	Category III	G.	H.	I.	J.	K.	L.		
Aluminium (Al)	70000	44	LT 2	28	390	1100	1300		
Arsenic (As)	47	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2		
Boron (B)	15000	LT 2	2	LT 2	LT 2	LT 2	LT 2		
Barium (Ba)	18750	LT 2	2	15	LT 2	4	2		
Cadmium (Cd)	17	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2		
Cobalt (Co)	130	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2		
Chromium III (Cr III)	460	0.059		0.11	0.061	0.12	0.15		
Chromium VI (Cr VI)	0.052	#LT	LT 0.050	#LT	#LT	#LT	#LT		
Chromium vi (Cr vi)	0.053	0.0020		0.0020	0.0020	0.0020	0.0020		
Copper (Cu)	7700	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2		
Mercury (Hg)	94	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2		
Manganese (Mn)	15000	LT 2	3	16	LT 2	LT 2	LT 2		
Nickel (Ni)	930	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2		
Lead (Pb)	23	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2		
Antimony (Sb)	560	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2		
Selenium (Se)	460	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2		
Tin (Sn)	180000	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2		
Organic tin	12	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2		
Strontium (Sr)	56000	LT 2	17	33	LT 2	5	5		
Zinc (Zn)	46000	9	3	22	30	83	92		
Mass of trace am	ount (gram)								
Conclus		Pass	Pass	Pass	Pass	Pass	Pass		



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# **RESULTS:**

# MIGRATION OF CERTAIN ELEMENTS (European Standard EN 71 Part 3: 2019)

Test Method: European Standard EN 71 Part 3: 2019, Section 9.

	Requirement				(mg/kg)		
Analyte	(mg/kg)				ole ID		
	Category III	M.	N.	Ο.	P.	Q.	R.
Aluminium (Al)	70000	LT 2					
Arsenic (As)	47	LT 2					
Boron (B)	15000	LT 2					
Barium (Ba)	18750	LT 2					
Cadmium (Cd)	17	LT 2					
Cobalt (Co)	130	LT 2					
Chromium III (Cr III)	460	1 T 0 050	1 T 0 050	I T O 050	1 T 0 050	1 T 0 050	1 T O OFO
Chromium VI (Cr VI)	0.053	LT 0.050					
Copper (Cu)	7700	LT 2					
Mercury (Hg)	94	LT 2					
Manganese (Mn)	15000	LT 2					
Nickel (Ni)	930	LT 2					
Lead (Pb)	23	LT 2					
Antimony (Sb)	560	LT 2					
Selenium (Se)	460	LT 2					
Tin (Sn)	180000	LT 2					
Organic tin	12	LT 2					
Strontium (Sr)	56000	LT 2					
Zinc (Zn)	46000	LT 2	LT 2	LT 2	6	LT 2	LT 2
Mass of trace am	ount (gram)						
Conclus	ion	Pass	Pass	Pass	Pass	Pass	Pass



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# **RESULTS:**

# MIGRATION OF CERTAIN ELEMENTS (European Standard EN 71 Part 3: 2019)

Test Method: European Standard EN 71 Part 3: 2019, Section 9.

	Requirement	Result (mg/kg)						
Analyte	(mg/kg)			Sam	ole ID			
	Category III	S.	T.	U.	V.	W.	X.	
Aluminium (Al)	70000	LT 2	LT 2	LT 2	15	LT 2	LT 2	
Arsenic (As)	47	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	
Boron (B)	15000	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	
Barium (Ba)	18750	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	
Cadmium (Cd)	17	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	
Cobalt (Co)	130	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	
Chromium III (Cr III)	460	1 T 0 050	1 T 0 050	1 T 0 050	1 T O OFO	1 T 0 050	1 T 0 050	
Chromium VI (Cr VI)	0.053	LT 0.050	LT 0.050	LT 0.050	LT 0.050	LT 0.050	LT 0.050	
Copper (Cu)	7700	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	
Mercury (Hg)	94	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	
Manganese (Mn)	15000	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	
Nickel (Ni)	930	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	
Lead (Pb)	23	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	
Antimony (Sb)	560	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	
Selenium (Se)	460	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	
Tin (Sn)	180000	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	
Organic tin	12	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	
Strontium (Sr)	56000	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	
Zinc (Zn)	46000	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	
Mass of trace am	ount (gram)							
Conclus	ion	Pass	Pass	Pass	Pass	Pass	Pass	



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# **RESULTS:**

# MIGRATION OF CERTAIN ELEMENTS (European Standard EN 71 Part 3: 2019)

Test Method: European Standard EN 71 Part 3: 2019, Section 9.

	Requirement	Result (mg/kg) Sample ID						
Analyte	(mg/kg)							
	Category III	Y.	Z.	AA.	AB.	AC.	AD.	
Aluminium (Al)	70000	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	
Arsenic (As)	47	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	
Boron (B)	15000	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	
Barium (Ba)	18750	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	
Cadmium (Cd)	17	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	
Cobalt (Co)	130	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	
Chromium III (Cr III)	460	LT 0.050	LT 0.050	LT 0.050	LT 0.050	LT 0.050	LT 0.050	
Chromium VI (Cr VI)	0.053	L1 0.030						
Copper (Cu)	7700	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	
Mercury (Hg)	94	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	
Manganese (Mn)	15000	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	
Nickel (Ni)	930	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	
Lead (Pb)	23	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	
Antimony (Sb)	560	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	
Selenium (Se)	460	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	
Tin (Sn)	180000	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	
Organic tin	12	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	
Strontium (Sr)	56000	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	
Zinc (Zn)	46000	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	
Mass of trace amount (gram)								
Conclusion		Pass	Pass	Pass	Pass	Pass	Pass	



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# **RESULTS:**

# MIGRATION OF CERTAIN ELEMENTS (European Standard EN 71 Part 3: 2019)

Test Method: European Standard EN 71 Part 3: 2019, Section 9.

	Requirement	Result (mg/kg)						
Analyte	(mg/kg)	Sample ID						
	Category III	AE.	AF.	AG.	AH.	AI.	AJ.	
Aluminium (Al)	70000	LT 2	2	73	LT 2	LT 2	3	
Arsenic (As)	47	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	
Boron (B)	15000	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	
Barium (Ba)	18750	LT 2	LT 2	3	LT 2	LT 2	5	
Cadmium (Cd)	17	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	
Cobalt (Co)	130	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	
Chromium III (Cr III)	460			0.078			0.054	
Chromium VI (Cr VI)	0.053	LT 0.050	LT 0.050	#LT	LT 0.050	LT 0.050	#LT	
, ,				0.0020			0.0020	
Copper (Cu)	7700	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	
Mercury (Hg)	94	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	
Manganese (Mn)	15000	LT 2	LT 2	3	LT 2	LT 2	LT 2	
Nickel (Ni)	930	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	
Lead (Pb)	23	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	
Antimony (Sb)	560	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	
Selenium (Se)	460	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	
Tin (Sn)	180000	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	
Organic tin	12	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	
Strontium (Sr)	56000	LT 2	LT 2	7	LT 2	LT 2	LT 2	
Zinc (Zn)	46000	LT 2	LT 2	2	LT 2	LT 2	LT 2	
Mass of trace amount (gram)				0.0343				
Conclusion		Pass	Pass	Pass	Pass	Pass	Pass	



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#### **RESULTS:**

#### MIGRATION OF CERTAIN ELEMENTS (European Standard EN 71 Part 3: 2019)

Test Method: European Standard EN 71 Part 3: 2019, Section 9.

Class: Category III - Scraped off toy material

	Requirement	Result (mg/kg)						
Analyte	(mg/kg)	Sample ID						
	Category III	AK.	AL.	AM.				
Aluminium (Al)	70000	13	12	3				
Arsenic (As)	47	LT 2	LT 2	LT 2				
Boron (B)	15000	LT 2	LT 2	LT 2				
Barium (Ba)	18750	12	5	LT 2				
Cadmium (Cd)	17	LT 2	LT 2	LT 2				
Cobalt (Co)	130	LT 2	LT 2	LT 2				
Chromium III (Cr III)	460	0.17	0.17	0.062				
Chromium VI (Cr VI)	0.053	#LT	#LT	#LT				
Chromium vi (Cr vi)		0.0020	0.0020	0.0020				
Copper (Cu)	7700	8	7	LT 2				
Mercury (Hg)	94	LT 2	LT 2	LT 2				
Manganese (Mn)	15000	LT 2	LT 2	LT 2				
Nickel (Ni)	930	LT 2	LT 2	LT 2				
Lead (Pb)	23	LT 2	LT 2	LT 2				
Antimony (Sb)	560	LT 2	LT 2	LT 2				
Selenium (Se)	460	LT 2	LT 2	LT 2				
Tin (Sn)	180000	LT 2	LT 2	LT 2				
Organic tin	12	LT 2	LT 2	LT 2				
Strontium (Sr)	56000	LT 2	LT 2	LT 2				
Zinc (Zn)	46000	19	24	LT 2				
Mass of trace amount (gram)								
Conclusion		Pass	Pass	Pass				

mg/kg = milligrams per kilogram (ppm=parts per million)

LT = Less Than

\* = Average of duplicate analysis

FR = Failed Result

Organic tin = migration of total organic tin is expressed as tributyl tin cation content in mg/kg # = Verified results (see note)

Remark:

- Results of Cr III and Cr VI were reported as sum of soluble Chromium content unless specified.
- Result(s) of organic tin was (were) calculated while assuming the tin content wholly contributed from tributyltin cation unless specified.

#### Note:

If soluble chromium content or soluble tin content exceeded the screening limits of soluble chromium (VI) or organic tin content, the results were verified by below method

- Chromium VI: EN71 part 3:2019, Annex F
- Organic tin: EN71 part 3:2019, Annex G by Gas Chromatography Mass Spectroscopy analysis.



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# (\*)RESULTS:



**END OF REPORT**