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ONE FOR FUN LTD

3 5 CAMBUSLANG WAY, GATEWAY OFFICE PARK, CAMBUSLANG, GLASGOW, G32 8ND, UK

Sample Description: PINBALL GAME

Vendor: N/A Sample Size: 2

Manufacturer: N/A Style No(s): SV21666

Labeled Age Grade: FOR AGES 3 & UP SKN/SKU No.: NOT PROVIDE Appropriate Age Grade: NOT REQUESTED PO No.: NOT PROVIDE

Client Specified Age 3

Grade:

Tested Age Grade:

OVER 3 YEARS OF AGE Country of Origin: CHINA

Ref#:

Assortment No.:

**NOT PROVIDE** 

**NOT PROVIDE** 

UPC Code: N/A

Further Information AUG 23, 2023

Date:

Test Starting Date: AUG 11, 2023 Test Finished Date: AUG 26, 2023

#### **EXECUTIVE SUMMARY:**

Test Requested	Conclusion
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
Flammability requirements of the European Standard "Safety of Toys", EN 71: Part 2: 2020.	PASS
Mechanical hazards requirements of ASTM F963-17, "Standard consumer safety specification for toy safety".	PASS
Flammability requirement of solids under ASTM F963-17 section 4.2 according to Annex A5, "Flammability testing procedure for solids and soft toys".	PASS

To be continued.

BUREAU VERITAS SHENZHEN CO.,LTD

DONGGUAN BRANCH

Lisa Bai

Analytical lab technical ass. manager

Bai Tone Tang

RT/ Min Chen

<u>REMARK</u>

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

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Bureau Veritas Shenzhen Co., Ltd., Dongguan Branch No.96, Houjie, Guantai Road., Houjie, Dongguan,Guangdong, China Tel: +86-769-89982098 Fax: +86-769-85991080 www.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 <a href="http://www.bureauveritas.com/home/about-us/our-business/cps/about-us/terms-conditions/">http://www.bureauveritas.com/home/about-us/our-business/cps/about-us/terms-conditions/</a> and is intended for your exclusive use. Any copying or replication of this report sets form 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 crovided, 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 you unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.

Physics Lab Assistant Supervisor

BUREAU VERITAS SHENZHEN CO.,LTD

DONGGUAN BRANCH



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# **EXECUTIVE SUMMARY:**

Test Requested	Conclusion
Migration of Certain Elements in Category III - Scraped off toy material requirements of the European Standard, "Safety of toys", EN 71-3:2019+A1:2021.	PASS
Total Cadmium Content – European Parliament and Council Regulation (EC) No. 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), Annex XVII, Item no. 23.	PASS
Total lead content in surface coating requirements of ASTM F963-17, "Standard consumer safety specification for toy safety", Section 4.3.5.1(1).	NA
Total lead content in substrate requirements of ASTM F963-17, "Standard consumer safety specification for toy safety", Section 4.3.5.2(2)(a).	PASS
Soluble heavy metals content in surface coating requirements of ASTM F963-17, "Standard Consumer Safety Specification for Toy Safety," Section 4.3.5.1(2).	NA
Soluble heavy metals content in substrate requirements of ASTM F963-17, "Standard Consumer Safety Specification for Toy Safety," Section 4.3.5.2(2)(b).	PASS
Total lead content requirements in children products according to the California Proposition 65 settlements of Alameda Superior Court RG 07356892.	PASS
BBP, DBP ,DEHP and DIBP content requirements of the European Regulation (EC) No. 1907/2006 of the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), Annex XVII concerning the Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles, Item no. 51(amended up to EU No.2018/2005).	PASS
DNOP, DINP and DIDP content requirements of the European Regulation (EC) No. 1907/2006 of the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), Annex XVII concerning the Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles, Item no. 52.	PASS
BBP, DBP, DEHP, DnHP and DIDP content requirements in toys, child care articles and watches according to the California Proposition 65 settlements of County of Sacramento case number 07AS04683, and the Alameda Superior Court case numbers BG07350969, RG08367601, RG07351032 and RG08378050.	PASS

Note: At the request of the client, the sample(s) was evaluated for use by children 3+.

Note: At the request of the client, the EN 71 Pt.1-2014+A1:2018: clause 7 labeling requirement(s) was not evaluated for this submission.

Note: At the request of the client, the ASTM F963-17 labeling requirement(s) was not evaluated for this submission.

Note: The composite test sample(s) of the submitted samples was prepared in the manner requested by the client, when subject to the test performed.



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# Tested Component(s) Description List:

Test Item(s)	Item / Component Description(s)	Location(s)	Style(s)
1001	Transparent plastic	Body	-
1002	Brown plastic	Button	-
1003	Multicolor printed white paper	Base	-
1004	Orange plastic	Bead	-
1005	Pink plastic	Bead	-
1006	Green plastic	Bead	-
1007	Blue plastic	Bead	-
1008	All coating	Surface	-
1009	Rose pink plastic	Bead	-



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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	The sample(s) DOES NOT MEET the requirement of this Subclause					
M	The sample(s) MEET t	the requiren	nent of this Subclause				
N/A	Not Applicable						
NR	Not Requested						
NE	Not Evaluated						
NP	None Present						
NT	Not Tested						
Р	Present						
R	Refer to Comment Sec	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		
E	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	NA
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	NA
4.10.4	Springs	NA
4.11	Mouth actuated toys and other toys intended to be put in the mouth	NA
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	NA
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



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# **RESULTS:**

Subclause	Requirement	Result
4.16	Heavy immobile toys	NA
4.17.2	All projectiles	NA
4.17.3 & 7.7	Projectile toys with stored energy	NA
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- 4.20.2.4, 4.20.2.6-4.20.2.12 & 7.14	Acoustics	NA
*4.20.2.5	Acoustics- Toys using headphones or earphones	NA
4.21	Toys containing a non-electrical heat source	NA
4.22 & 7.2	Small balls	NT
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



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#### **RESULTS:**

Subclause	Requirement	Result
5.4.3 & 7.22	Cords and chains in toys intended for children of 18 months or over	NA
	but under 36 months	
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
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	NA
	WARNINGS, INSTRUCTIONS FOR USE	
7.1	General	NT
7.2	Toys not intended for children under 36 months	NT
7.5	Functional toys	NT

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



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# **RESULTS:**

# 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	4.15.1.5	8.26.1	4.22	8.3, 8.4.2.1, 8.5, 8.6, 8.7, 8.8, 8.32	5.4.5	8.40
4.5	8.5, 8.7, 8.11, 8.12	4.15.1.8	8.29	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	5.4.6	8.40
4.6	8.2, 8.3, 8.4.2.1, 8.5, 8.7, 8.8, 8.14	4.15.2.4	8.26.2	4.24	8.37	5.4.7	8.20
4.7	8.11	4.15.3	8.21, 8.23.1	4.25	8.2, 8.3, 8.4.2.1, 8.5, 8.7, 8.8, 8.32.1	5.7.8	8.39
4.8	8.12, 8.13	4.15.4	8.21, 8.23.1	4.26	8.38	5.5	8.15
4.9	8.4.2.3, 8.11, 8.12	4.15.5	8.11, 8.12, 8.21, 8.22, 8.26.3, 8.27	4.27.1	8.43	5.6	8.29
4.10.1	8.18.2, 8.18.3	4.16	8.23.2	4.27.2	8.4.2.6	5.8	8.16
4.10.2	8.5, 8.6, 8.7, 8.11, 8.12	4.17.1	8.3, 8.4.2.1, 8.7, 8.8, 8.42	4.27.3	8.4.2.6	5.10	8.3, 8.4.2.1, 8.5, 8.6, 8.7, 8.8, 8.9, 8.32
4.11	8.2, 8.3, 8.4.2.1, 8.9, 8.17	4.17.2	8.3, 8.4.2.4,8.7, 8.8, 8.32.1, 8.43, 8.44	5.1	8.2, 8.3, 8.4.2.1, 8.5, 8.7, 8.8, 8.9, 8.11, 8.12	5.11	8.33
4.13	8.19	4.17.3	8.3, 8.4.2.3, 8.4.2.5, 8.11, 8.12, 8.24, 8.42	5.3	8.4.2.1, 8.25	5.12	8.3, 8.4.2.1, 8.5, 8.6, 8.7, 8.8, 8.9,
4.14.1	8.31.1, 8.31.2	4.17.4	8.3, 8.4.2.3, 8.4.2.5, 8.11, 8.12, 8.24, 8.42	5.4.1	8.40	5.13	8.3, 8.4.2.1, 8.5, 8.7, 8.8, 8.32
4.14.2	8.3, 8.4.2.1, 8.5, 8.7, 8.8, 8.11, 8.12	4.18	8.2, 8.3, 8.4.2.1	5.4.2	8.38, 8.40, 8.41	5.14	8.38
4.15.1.3	8.11, 8.12, 8.21, 8.22	4.20	8.28	5.4.3	8.38, 8.40, 8.41	6	8.3, 8.4.2.1, 8.25.1, 8.32.1
4.15.1.4	8.23.1	4.21	8.30	5.4.4	8.36, 8.38		



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# **RESULTS:**

# 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	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 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	-	-

\* Note: Subclause indicated with \* are not accredited.

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

P = Present NP = Not Present



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#### **RESULTS:**

#### APPROPRIATE AGE GRADE DETERMINATION

The Appropriate Age Grade is determined with reference to the Age Determination Guidelines of the Consumer Product Safety Commission (CPSC); and the ASTM F963-17, "Standard Consumer Safety Specification on Toy Safety". Annex A1

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.

#### **USE AND ABUSE TESTS**

The samples were undergo the tests in accordance with section 8.6 through 8.16, whichever is applicable							
Test	Test Parameters	Standard Reference					
Impact Test	4 x 3 ft	1500.53(b)					
Torque Test	4 in-lbs	1500.53(e)					
Tension Test	15 lbs	1500.53(f )					
Compression Test	30 lbs	1500.53(g)					



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# **RESULTS:**

# PHYSICAL AND MECHANICAL HAZARDS (ASTM F963-17)

Section	Requirement	Result
4.1	Material Quality	M
4.3.7	Stuffing Materials	N/A
4.5	Sound-Producing Toys	N/A
4.6	Small Objects	N/A
4.7	Accessible Edges	М
4.8	Projections	N/A
4.9	Accessible Points	M
4.10	Wires and Rods	N/A
4.11	Nails and Fasteners	N/A
4.12	Plastic Film	N/A
4.13	Folding Mechanisms and Hinges	N/A
4.14	Cords, Straps and Elastics	N/A
4.15	Stability and Over-Load Requirements	N/A
4.16	Confined Spaces	N/A
4.17	Wheels, Tires, and Axles	N/A
4.18	Holes, Clearances and Accessibility of Mechanisms	N/A
4.19	Simulated Protective Devices	N/A
4.20	Pacifiers	N/A
4.21	Projectile Toys	N/A
4.22	Teethers and Teething Toys	N/A
4.23	Rattles	N/A
4.24	Squeeze Toys	N/A
4.25	Battery-Operated Toys (exclude Section 4.25.10 Battery-powered ride-on toys & Section 4.25.11 Toys that Contain Secondary Cells or Secondary Batteries)	N/A
4.26	Toys Intended to be Attached to a Crib or Playpen	N/A
4.27	Stuffed and Beanbag-Type Toys	N/A
4.30	Toy Gun Marking	N/A
4.32	Certain Toys with Nearly Spherical Ends	N/A
4.34	Small Balls	N/A
4.35	Pompoms	N/A
4.36	Hemispheric-Shaped Objects	N/A
4.37	Yo Yo Elastic Tether Toys	N/A
4.38	Magnets	N/A
4.39	Jaw Entrapment in Handles and Steering Wheels	N/A
4.40	Expanding Materials	N/A

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



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# **RESULTS:**

# FLAMMABILITY (16 CFR SECTION 1500.3(c)6)(vi))

Requirement	Test Method Reference	Findings
Burn rate no greater than 0.1 of an inch per second	16 CFR 1500.44	Most rapid burn rate less than 0.1 of an inch per second.



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# **RESULTS:**

Migration of Certain Elements, EN 71-3:2019+A1:2021

Test Method: European Standard EN 71-3:2019+A1:2021 Section 8.

Category III - Scraped off toy material Class:

	Requirement		Result (mg/kg)						
Analyte	(mg/kg)		Test Item(s)						
·	Category III	1001	1002	1003	-	-			
Aluminum (Al)	28130	ND	ND	150	-	-			
Arsenic (As)	47	ND	ND	ND	-	-			
Boron (B)	15000	ND	ND	3	-	-			
Barium (Ba)	18750	ND	ND	9	-	-			
Cadmium (Cd)	17	ND	ND	ND	-	-			
Cobalt (Co)	130	ND	ND	ND	-	-			
Chromium III (Cr III)	460	ND	ND	0.22	-	-			
Chromium VI (Cr VI)	0.053	ND	ND	ND#	-	-			
Copper (Cu)	7700	ND	ND	ND	-	-			
Mercury (Hg)	94	ND	ND	ND	-	-			
Manganese (Mn)	15000	ND	ND	27	-	-			
Nickel (Ni)	930	ND	ND	ND	-	-			
Lead (Pb)	23	ND	ND	ND	-	-			
Antimony (Sb)	560	ND	ND	ND	-	-			
Selenium (Se)	460	ND	ND	ND	-	-			
Tin (Sn)	180000	ND	ND	ND	-	-			
Organic tin	12	ND	ND	ND	-	-			
Strontium (Sr)	56000	ND	ND	40	-	-			
Zinc (Zn)	46000	ND	ND	8	-	-			
Mass of trace am	ount (gram)	-	-	-	-	-			
Conclusi	on	PASS	PASS	PASS	-	-			



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#### **RESULTS:**

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

Organic tin = migration of total organic tin is expressed as tributyltin cation content in mg/kg

# = Verified results (see note)

ND = Not detected

Detection Limit ( mg/kg ):

 $Category \ III - AI : 2 \ ; \ Sb : 2 \ ; \ As : 2 \ ; \ Ba : 2 \ ; \ Ba : 2 \ ; \ Cd : 2 \ ; \ Cr \ III : 0.15 \ ; \ Cr \ VI : 0.025 \ ; \ Co : 2 \ ; \ Cu : 2 \ ; \ Pb : 2 \ ; \ Mn : 2 \ ; \ Co : 2 \ ; \ Cu : 2 \ ; \ Pb : 2 \ ; \ Mn : 2$ 

 $Hg:2\;;Ni:2\;;Se:2\;;Sr:2\;;Sn:2\;;Organic\;tin:2\;;Zn:2$ 

#### 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.
- -The pH measured shall be reported after migration if it was outside the range of 1.1 to 1.3.

#### 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: EN 71-3:2019+A1:2021, Annex F by Ion-chromatography with ICP-MS detector analysis.
- Organic tin: EN 71-3:2019+A1:2021, Annex G by Gas Chromatography-Mass Spectroscopy analysis.



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# **RESULTS:**

Total Cadmium Content – European Parliament and Council Regulation (EC) No. 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), Annex XVII, Item no. 23

Test Method : BS EN 1122: 2001, Method B or Acid digestion followed by Atomic Absorption

Spectrophotometry or Inductively Coupled Plasma Spectrometry.

	Type I	Paints on Painted Article: 1000 mg/kg
Maximum	Type II	Plastics: 100 mg/kg
Allowable Limit :	Type III	Metals in Jewellery: 100 mg/kg
	Type IV	Wet Paints: 100 mg/kg

To at the ma(a)	Τ	Result	l limit	Camaluaian	
Test Item(s)	Type	Total Cadmium (Cd)	Unit	Conclusion	
l001+l002	II	ND	mg/kg	PASS	
1004+1005	II	ND	mg/kg	PASS	
1006+1007+1009	II	ND	mg/kg	PASS	
1008	I	ND	mg/kg	PASS	

Note / key:

ND = Not detected mg/kg = milligram(s) per kilogram Detection Limit: 10 mg/kg



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# **RESULTS:**

# Total Lead Content in Substrate – ASTM International Standard ASTM F963-17, Section 4.3.5.2(2)(a) Test Method : ASTM International Standard ASTM F963-17, Section 8.3.1 and Annex A7.

Maximum Allowable Limit :	100 mg/kg

To at the ma(a)	Result	l lait	Conclusion	
Test Item(s)	Total Lead (Pb)	Unit		
l001+l002	ND	mg/kg	PASS	

Note / key:

ND = Not detected mg/kg = milligram(s) per kilogram Detection Limit (mg/kg) : 10



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#### **RESULTS:**

#### Soluble Heavy Metals Content in Substrate -ASTM F963-17, Section 4.3.5.2(2)(b)

Test Method : ASTM International Standard ASTM F963-17, Section 8.3.5 (Excluding 8.3.5.5(3))

Analyte	As	Ва	Cd	Cr	Hg	Pb	Sb	Se
Max. Limit Type I (mg/kg)	25	1000	75	60	60	90	60	500
Max. Limit Type II (mg/kg)	25	250	50	25	25	90	60	500
Analytical Correction (%)	60	30	30	30	50	30	60	60

Analyte	As	Ва	Cd	Cr	Hg	Pb	Sb	Se	Mass of Trace Amount	Conclusion
Test Item(s)		Result (mg/kg)							(g)	
Type I: Substr	Type I: Substrate other than modeling clay									
1001	ND	ND	ND	ND	ND	ND	ND	ND	-	PASS
1002	ND	ND	ND	ND	ND	ND	ND	ND	-	PASS

#### Note / key:

ND = Not detected g = gram(s) % = percent

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

Detection Limit (mg/kg):

For Type I – As : 2.5; Ba : 100; Cd : 7.5; Each (Cr, Hg, & Sb) : 6.0; Pb : 9.0; Se : 50 For Type II – Each (As, Cr & Hg) : 2.5; Ba : 25; Cd : 5.0; Sb : 6.0; Pb : 9.0; Se : 50

#### Remark:

 Textiles (natural or synthetic) are exempted for lead content requirement according to clarification of Toy Industry Association for ASTM F963-17. The lead content analysis result of corresponding material herein is for client's reference only.



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# **RESULTS:**

# Total Lead Content in Children Products (California Proposition 65 settlements of Alameda Superior court RG 07356892)

Test Method : EPA 3050B (Mod) / EPA 3051A (Mod)

Maximum	Type I	Paint and surface coatings: 90 mg/kg
Allowable Limit:	Type II	Substrate materials: 100 mg/kg

Toot Itom(a)	Tuno	Result	Unit	Conclusion	
Test Item(s)	Туре	Total Lead (Pb)	Unit	Conclusion	
1001+1002	Ш	ND	mg/kg	PASS	

Note / key:

ND = Not detected mg/kg = milligram(s) per kilogram Detection Limit (mg/kg) : 10



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# **RESULTS:**

BBP/DBP/DEHP/DIBP Contents in Toys and Childcare Articles – European Regulation (EC) No. 1907/2006 REACH Annex XVII, Item no. 51

Test Method

With referenced to CPSC-CH-C1001-09.3/ CPSC-CH-C1001-09.4 , sample was extracted with organic solvent and then analyzed by Gas Chromatograph Mass Spectrometer

Test Parameter:	BBP	DBP	DEHP	DIBP	SUM	-		
Limit (%):		0.1 (Sum of Four phthalates)						
Test Item(s)		Result (%)						
I001+I002	ND	ND	ND	ND	ND	PASS		
1004+1005	ND	ND	ND	ND	ND	PASS		
1006+1007+1009	ND	ND	ND	ND	ND	PASS		
1008	ND	ND	ND	ND	ND	PASS		

Note / key:

BBP = Butyl benzyl phthalate DEHP = Di(2-ethylhexyl) phthalate

ND = Not detected

mg/kg = milligram(s) per kilogram Detection Limit (%) : Each 0.005 DBP = Dibutyl phthalate DIBP= Diisobutyl phthalate

% = percent 10000 mg/kg = 1 %



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# **RESULTS:**

DNOP/DINP/DIDP Contents in Toys and Childcare Articles which can be placed in the Mouth by the Children – European Regulation (EC) No. 1907/2006 REACH Annex XVII, Item no. 52

Test Method: With referenced to CPSC-CH-C1001-09.3/ CPSC-CH-C1001-09.4, sample was extracted with organic solvent and then analyzed by Gas Chromatograph Mass Spectrometer

Test Parameter:	DIDP	DINP	DNOP	SUM	-
Limit (%):		-			
Test Item(s)		Conclusion			
1001+1002	ND	ND	ND	ND	PASS

Note / key:

DNOP = Di-n-octyl phthalate ND = Not detected

mg/kg = milligram(s) per kilogram Detection Limit (%) : Each 0.005 DINP = Di-iso-nonyl phthalate % = percent DIDP = Di-iso-decyl phthalate 10000 mg/kg = 1 %



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# **RESULTS:**

BBP/DBP/DEHP/DnHP/DIDP Phthalates Content Requirements in Toys, Child Care Articles and Watches – California Proposition 65 settlements of County of Sacramento case number 07AS04683, and the Alameda Superior Court case numbers BG07350969, RG08367601, RG07351032 and RG08378050

Test Method : With reference to U. S. CPSC-CH-C1001-09.4 (January 17, 2018)

Test Parameter:	BBP	DBP	DEHP	DnHP	DIDP	-
Limit (%):	0.1	0.1	0.1	0.1	0.1	-
Test Item(s)	Result (%)					Conclusion
1001+1002	ND	ND	ND	ND	ND	PASS

Note / key:

BBP = Butyl benzyl phthalate DnHP = Di-n-hexyl phthalate

ND = Not detected

mg/kg = milligram(s) per kilogram

Detection Limit (%): Each 0.005

DBP = Dibutyl phthalate DIDP = Di-iso-decyl phthalate

% = percent 10000 mg/kg = 1 %



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# **RESULTS:**



**END OF REPORT**