



CONSUMER PRODUCTS SERVICES DIVISION

LOONEY LABS

Technical Report: (6620)352-1077

December 25, 2020

Date Received: December 18, 2020

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CHENXIULI/GULIQIN
LOONEY LABS

Sample Description:	PIRATE FLUXX & NATURE FLUXX & AQUARIUS & ASTRONOMY FLUXX	Sample Size:	4 SET
Vendor:	LOONEY LABS	Style No(s):	N/A
Manufacturer:	LONGPACK	SKN/SKU No.:	N/A
Buyer:	LOONEY LABS	PO No.:	N/A
Labeled Age Grade:	FOR 002: AGES: 3-A; FOR OTHERS: AGES: 8-A	Ref #:	N/A
Appropriate Age Grade:	NOT REQUESTED	Country of Origin:	CHINA
Client Specified Age Grade:	FOR 002: OVER 8 YEARS OF AGE; FOR OTHERS: OVER 8 YEARS OF AGE	Assortment No.:	N/A
Tested Age Grade:	FOR 002: OVER 8 YEARS OF AGE; FOR OTHERS: OVER 8 YEARS OF AGE	Country Destination:	USA
UPC Code:	N/A		

EXECUTIVE SUMMARY:

The sample(s) MEETS the following requirement(s):

- 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. (With note 2)
- The flammability requirements of the European Standard "Safety of Toys", EN 71: Part 2: 2011+ A1: 2014.
- The mechanical hazards requirements of ASTM F963-17, "Standard consumer safety specification for toy safety".
- The labelling requirements of ASTM F963-17, "Standard consumer safety specification for toy safety".
- The flammability requirements of 16 CFR 1500.3(c)(6)(vi), "Flammable solid" (FHSA regulations).
- 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 section 8.
- The 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.
- PHTHALATES CONTENT IN CHILDREN'S TOYS AND CHILD CARE ARTICLES (Consumer Product Safety Improvement Act (CPSIA) of 2008, Section 108(a) and 108(c), 16 CFR 1307)
- The 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).

NOTE:

1. The sample is tested for "FOR 002: OVER 8 YEARS OF AGE; FOR OTHERS: OVER 8 YEARS OF AGE" as the client's request.
2. There is only one EU company name and address present on the sample. It has to be noted that, according to TSD 2009/48/EC, If the manufacturer (declaring himself as manufacturer by establishing and signing the EC declaration of conformity) is outside the community and the products are placed on the EU market by an importer, the toy will bear two company name and addresses: the one of the manufacturer and the one of the importer.
3. According to the associated documents of Consumer Product Safety Improvement Act (CPSIA) of 2008, exemptions were granted to certain materials or products, such as natural materials / paper and similar materials / CMYK process printing inks / metal & alloys / electronics devices components / ordinary books / dyed & undyed textiles. Therefore, the lead content analysis < Cmyk on paper > was not conducted.
4. As per client's request, the test analytical results & data of component "1,2,3" were refer to (6620)224-0667 dated August 18, 2020.
5. As per client's request, the test analytical results & data of component "4" were refer to (6620)262-0458(revised) dated August 18, 2020.

BVCPS (SHANGHAI) GENERAL CONTACT INFORMATION FOR THIS REPORT

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BUREAU VERITAS
CONSUMER PRODUCTS SERVICE DIVISION (SHANGHAI)
Laboratory Test location :
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Shanghai.



LEON DENG
PRODUCT LINE MANAGER (TOY DIVISION)

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

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	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	M
4.8 & 7.6	Points and metallic wires	M
4.8e	Splinters	M
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
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 projectile toys without stored energy	NA
4.18 & 7.4	Aquatic toys and inflatable toys	NA
4.19 & 7.13 & 7.14	Percussion caps	NA

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

Subclause	Requirement	Result
*4.20.2.1- 4.20.2.8, 4.20.2.10, 4.20.2.12	Acoustics	NA
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
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

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

Subclause	Requirement	Result
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	NA
7.2	Toys not intended for children under 36 months	NA
7.5	Functional toys	NA

2009/48/EC General Labeling Requirement

Requirement	Result
CE Mark	M
Manufacturer/ Importer name and address	SEE NOTE 2
Product Identification	M

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

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

Subclause	Requirement	Result
4.1	Cellulose nitrate	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

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



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 BVCPS 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
Drop	4 x 3 ft	1500.53(b)
Torque	4 in-lbs	1500.53(e)
Tension	15 lbs	1500.53(f)

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	M
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



LABELING AND INSTRUCTIONAL REQUIREMENT (ASTM F963-17)

Section	Requirement	Result
5.4 & 5.3	Aquatic Toys	N/A
5.5 & 5.3	Crib and Playpen Toys	N/A
5.6 & 5.3	Mobiles	N/A
5.7 & 5.3	Stroller and Carriage Toys	N/A
5.8 & 5.3	Toys Intended to be Assembled by an Adult	N/A
5.9 & 5.3	Simulated Protective Devices	N/A
5.10 & 5.3	Toys with Functional Sharp Edges or Sharp Points	N/A
5.11	Small Objects, Small Balls, Marbles and Balloons (16 CFR 1500.19)	N/A
5.12	Toy Caps (16CFR1500.86)	N/A
5.13	Art Materials (16 CFR 1500.14(b)(8))	N/A
5.15	Battery-Operated Toys (exclude 5.15.1)	N/A
5.15.1 & 5.3	Battery-Powered Ride-On Toys	N/A
5.16	Promotional Materials	M
5.17 & 5.3	Magnets	N/A
6.1	Definition and Description	M
6.2	Crib and Playpen Toys	N/A
6.3	Mobiles	N/A
6.4 & 5.3	Toys Intended to be Assembled by an Adult	N/A
6.5	Battery-Operated Toys	N/A
6.6	Battery-Powered Ride-On Toys	N/A
6.7	Toys in Contact with Food	N/A
7.1	Producer's Name and Address	M
7.2	Battery-Powered Ride-on Toys	N/A

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

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	Ignited but Self-Extinguished

Tested Component(s) Breakdown List

Sample Identity	Color / Component	Location	Style
1	Cmyk/cardboard	Card	#004970
2	Cmyk/paperboard	Outer box	#004970
3	Cmyk on paper	/	#004970
4	Cmyk on paperboard	Card/carton	112371

Migration of Certain Elements – (European Standard EN 71 PART 3:2019)

Test Method : European Standard EN 71 Part 3: 2019, Section 8.

See Soluble Element (Parameter) and its corresponding Maximum Allowable Limit (Req.) in Result Table	Category I	Dry, brittle, powder-like or pliable toy material
	Category II	Liquid or sticky toy material
	Category III	Scraped-off toy material

-	Unit	Req.	Report Limit	Result		
Test Item(s)	-	-	-	1	2	-
Category	-	III	III	III	III	-
Parameter	-	-	-	-	-	-
Mass of Trace Amount	g	-	-	-	-	-
Boron (B)	mg/kg	15000	1500	<1500	<1500	-
Aluminium (Al)	mg/kg	70000	7000	<7000	<7000	-
Chromium III (Cr III)	mg/kg	460	46	Cr(III): <46 Cr(VI): <0.005	Cr(III): <46 Cr(VI): <0.005	-
Chromium VI (Cr VI)	mg/kg	0.053	0.005			
Manganese (Mn)	mg/kg	15000	1500	<1500	<1500	-
Cobalt (Co)	mg/kg	130	13	<13	<13	-
Nickel (Ni)	mg/kg	930	93	<93	<93	-
Copper (Cu)	mg/kg	7700	770	<770	<770	-
Zinc (Zn)	mg/kg	46000	4600	<4600	<4600	-
Arsenic (As)	mg/kg	47	4.7	<4.7	<4.7	-
Selenium (Se)	mg/kg	460	46	<46	<46	-
Strontium (Sr)	mg/kg	56000	5600	<5600	<5600	-
Cadmium (Cd)	mg/kg	17	1.7	<1.7	<1.7	-
Tin (Sn)	mg/kg	180000	18000	<18000	<18000	-
Organic tin	mg/kg	12	12*	<12*	<12*	-
Antimony (Sb)	mg/kg	560	56	<56	<56	-
Barium (Ba)	mg/kg	18750	1875	<1875	<1875	-
Mercury (Hg)	mg/kg	94	9.4	<9.4	<9.4	-
Lead (Pb)	mg/kg	23	2.3	<2.3	<2.3	-
Conclusions	-	-	-	PASS	PASS	-

Note / Key :

ND = Not detected ">" = Greater than Req. = Requirement
 NR = Not requested g = gram(s)
 mg/kg = milligram(s) per kilogram = ppm = part(s) per million

Remark :

- If combined Cr content exceeds 0.02mg/kg in I mat., 0.005 mg/kg in II mat., or 0.053mg/kg in III mat., confirmation Cr(VI) by IC-ICP-MS or IC-UV/VIS. Cr(III)=Combined Cr – Cr(VI).
- *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 European Commission proposed to amend the maximum allowable limit(s) of migratable aluminium of European Parliament and Council Directive 2009/48/EC in particular regarding to Annex II, Part III, Point 13 in order to ensure the alignment to the scientific evidence from The Scientific Committee on Health, Environmental and Emerging Risks (SCHEER) and increase children's safety. See details in Comment.

Comment :

Proposals to amendment of European Parliament and Council Directive 2009/48/EC, Annex II, Part III, Point 13 :			
-	Type I	Type II	Type III
Element(s)	Aluminium (Al)	Aluminium (Al)	Aluminium (Al)
Current	5 625 mg/kg	1 406 mg/kg	70 000 mg/kg
Proposed^[b]	2 250 mg/kg	560 mg/kg	28 130 mg/kg
<p>^[b] denotes as these maximum allowable limits are referenced from the proposal for a European Commission Directive amending European Parliament and Council Directive 2009/48/EC, Annex II, Part III, Point 13, notified through World Trade Organization (WTO) dated on December 10, 2018 (With Notification Number G/TBT/N/EU/626). The proposal is expected to be adopted in the second quarter of Year 2019 and enter into application 18 months after publication in the Official Journal of the European Union (OJEU).</p>			



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 Parameter	BBP	DBP	DEHP	DnHP	DIDP	
Limit (%)	0.1	0.1	0.1	0.1	0.1	
Sample	Result (%)					Conclusion
3	ND	ND	ND	ND	ND	PASS

Detection Limit :

BBP = Butyl benzyl phthalate (0.005%)
 DBP = Dibutyl phthalate (0.005%)
 DEHP = Di(2-ethylhexyl) phthalate (0.005%)
 DnHP = Di-n-hexyl phthalate (0.005%)
 DIDP = Di-iso-decyl phthalate (0.005%)

Results reported in percentage

LT = Less than
 ND = None detected

PHTHALATES CONTENT IN CHILDREN'S TOYS AND CHILD CARE ARTICLES (Consumer Product Safety Improvement Act (CPSIA) of 2008, Section 108(a) and 108(c), 16 CFR 1307)

Test Method: With reference to U. S. CPSC-CH-C1001-09.3 (April 1, 2010) / CPSC-CH-C1001-09.4 (January 17, 2018).

Test Parameter:	Listed Phthalates (See Remark)		
Requirement:	Each 0.1%		
Sample ID	Detected Analyte	Concentration (%)	Conclusion
3	ND	ND	PASS

Results reported in percentage

ND = None detected

Detection Limit: Each Phthalate (0.005%)

LIST OF RESTRICTED PHTHALATES		
Number	Chemical Name	CAS Number
1.	Butyl benzyl phthalate (BBP)	85-68-7
2.	Dibutyl phthalate (DBP)	84-74-2
3.	Di(2-ethylhexyl) phthalate (DEHP)	117-81-7
4.	Di-iso-nonyl phthalate (DINP)	28553-12-0 & 68515-48-0
5.	Di-iso-butyl phthalate (DIBP)	84-69-5
6.	Di-n-pentyl phthalate (DPENP or DnPP)	131-18-0
7.	Di-n-hexyl phthalate (DHEXP or DnHP)	84-75-3
8.	Dicyclohexyl phthalate (DCHP)	84-61-7



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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))

Sample Identity	Color	Location	Style
Type I: Substrate other than modeling clay			
Type II: Modeling clay			

Analyte	As	Ba	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	Ba	Cd	Cr	Hg	Pb	Sb	Se	Mass of Trace Amount	Conclusion
Sample	Result (mg/kg)								(g)	
4	LT 2.5	LT 5	LT 5	LT 5	LT 5	-	LT 5	LT 5	/	PASS

mg/kg = milligrams per kilogram (ppm=parts per million)
CR = adjusted analytical result
LT = Less Than
ND = None Detected

As = Arsenic, Ba = Barium, Cd = Cadmium,
Cr = Chromium, Hg = Mercury, Pb = Lead,
Sb = Antimony, Se = Selenium



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