



CMA Testing and Certification Laboratories

廠商會檢定中心

TEST REPORT

Report No : AT0040023(9)

Date: 11 Aug 2015

Application No : LT026502(4)

Applicant : YOSHIRITSU CO., LTD.
1563 KOSHIBE, OYODO YOSHINO, NARA 638-0803 JAPAN

Sample Description : One hundred and seventeen (117) submitted samples stated to be used for :

Name of Parts :

- > - LaQ RED No.1-7
- > - LaQ BLUE No.1-7
- > - LaQ YELLOW No.1-7
- > - LaQ GREEN No.1-7
- > - LaQ PINK No.1-7
- > - LaQ SKY BLUE No.1-7
- > - LaQ ORANGE No.1-7
- > - LaQ LIME No.1-7
- > - LaQ WHITE No.1-7
- > - LaQ BLACK No.1-7
- > - LaQ BROWN No.1-7
- > - LaQ GRAY No.1-7
- > - LaQ CLEAR No.1-7
- > - LaQ CLEAR RED No.1-7
- > - LaQ CLEAR BLUE No.1-7
- > - LaQ CLEAR YELLOW No.1-7
- > - LaQ HAMACRON CONSTRUCTOR WHEEL
- > - LaQ HAMACRON CONSTRUCTOR SHAFT
- > - LaQ HAMACRON CONSTRUCTOR MINI WHEEL
- > - LaQ HAMACRON CONSTRUCTOR MINI SHAFT
- > - LaQ SWEET COLLECTION HEADBAND

Item Name


- (A) LaQ Hamacron Constructor Mini Airplane
- (B) LaQ Hamacron Constructor Mini Drag Racer
- (C) LaQ Hamacron Constructor Mini Forklift
- (D) LaQ Hamacron Constructor Mini Off-Roader
- (E) LaQ Hamacron Constructor Mini Police Car
- (F) LaQ Hamacron Constructor Mini Scooter
- (G) LaQ Insect World Mini Butterfly
- (H) LaQ Insect World Mini Mantis
- (I) LaQ Insect World Mini Scorpion
- (J) LaQ Insect World Mini Hercules Beetle
- (K) LaQ Insect World Mini Rhino Beetle
- (L) LaQ Insect World Mini Stag Beetle

For and on behalf of

CMA Industrial Development Foundation Limited

Authorized Signature :


Cheung Chok Ming
Deputy Manager
Toys and Material Division


Wan Leong Hang
Deputy Manager
Toys and Material Division

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Sample Description : Item Name
(M) LaQ Dinosaur World Dino Skeletons
(N) LaQ Dinosaur World Stegosaurus
(O) LaQ Dinosaur World Triceratops and Pteranodon
(P) LaQ Free Style Crystal
(Q) Hamacron Parts Kit
(R) Hamacron Mini Parts Kit
Country of Origin : Japan

Date Received : 10 Jun 2015.
13 Jul 2015.
27 Jul 2015.
03 Aug 2015.


Test Period : 26 Jun 2015 to 03 Jul 2015.
07 Jul 2015 to 20 Jul 2015.
03 Aug 2015 to 05 Aug 2015.

Test Requested : I. Test in accordance with EN71 : Part 1 : 2014 - Physical and Mechanical Properties;
II. Test in accordance with EN71 : Part 2 : 2011 + A1 : 2014 – Flammability test;
III. Test in accordance with EN71 : Part 3 : 2013 + A1 : 2014 - Migration of certain elements (Aluminium, Antimony, Arsenic, Barium, Boron, Cadmium, Chromium (III), Chromium (VI), Cobalt, Copper, Lead, Manganese, Mercury, Nickel, Selenium, Strontium, Tin, Organic Tin and Zinc).
IV. Test in accordance with ASTM F963-11 Standard of Consumer Safety Specification for Toy Safety :
- Physical and Mechanical Tests;
- Heavy Elements Test (Clause 4.3.5).
V. Lead content in accordance with U.S. Consumer Product Safety Improvement Act of 2008 – Sec. 101 : Children's Products Containing Lead; Lead Paint Rule.
VI. Regulation (EC) No. 1907/2006 of the European Parliament and of the Council, Annex XVII, Entry 23 and its amendment Regulation (EU) No. 494/2011 and No. 835/2012
- Cadmium content (formerly Directive 91/338/EEC).

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Test Requested : VII. Regulation (EC) No. 1907/2006 of the European Parliament and of the Council, Annex XVII
- Phthalates contents (formerly Directive 2005/84/EC).
VIII. Phthalates contents in accordance with U.S. Consumer Product Safety Improvement Act of 2008 - Sec. 108 : Prohibition on Sale of Certain Products Containing Specified Phthalates.

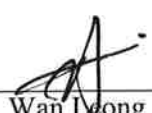
Test Method : I, II & III. As stated in above specifications. Heavy metal analysis was determined by Atomic Absorption Spectrophotometry and/or Inductively Coupled Plasma Spectrometry (ICP-OES) and/or Inductively Coupled Plasma Mass Spectrometry (ICP-MS) and/or Liquid Chromatograph-Inductively Coupled Plasma Mass Spectrometry (LC-ICP-MS).
IV. As stated in the above specification. Acid digestion followed by Atomic Absorption Spectrophotometry analysis and/or Inductively Coupled Plasma Spectrometry (ICP-OES) analysis for heavy elements analysis. Diluted acid extraction followed by Inductively Coupled Plasma Spectrometry (ICP-OES) analysis for soluble heavy element analysis.
V & VI. Acid digestion followed by Atomic Absorption Spectrophotometry and/or Inductively Coupled Plasma Spectrometry (ICP-OES) analysis.
VII & VIII. Phthalate analysis was determined by Gas Chromatography.

Test Result : Refer to the results on page 5 to 23.

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Conclusion	Test Item	Result
I.	EN71 : Part 1 : 2014	Passed
II.	EN71 : Part 2 : 2011 + A1 : 2014	Passed
III.	EN71 : Part 3 : 2013+ A1 : 2014	Passed
IV.	ASTM F963-11 - Physical and Mechanical Tests - Heavy Elements Test (Clause 4.3.5)	Passed Passed
V.	Lead content in accordance with U.S. Consumer Product Safety Improvement Act of 2008 - Sec. 101 for substrate materials.	Passed
VI.	Cadmium content in accordance with Regulation (EC) No. 1907/2006 of the European Parliament and of the Council, Annex XVII, Entry 23 and its amendment Regulation (EU) No. 494/2011 and No. 835/2012.	Passed
VII.	Phthalates contents in accordance with Regulation (EC) No. 1907/2006 of the European Parliament and of the Council, Annex XVII.	Passed
VIII.	Phthalates contents in accordance with U.S. Consumer Product Safety Improvement Act of 2008 - Sec. 108 : Prohibition on Sale of Certain Products Containing Specified Phthalates	Passed

Remark : The submitted samples were requested by the client to be tested in composite form. The results for composite sample are calculated based on the component with the least weight.

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Test Result :

Labelled age group : For ages 5 years and up (For item A to M, P, Q ,R)

Labelled age group : For ages 7 years and up (For item N,O)

Tested age group : For ages 5 years and up (For item A to M, P)

Tested age group : For ages 7 years and up (For item N,O)

Tested age group : For ages 3 years and up (For item Q , R)

I. EN71 : Part 1 : 2014 (For item A to L)

<u>Clause</u>	<u>Title/Description</u>	<u>Remark*</u>
4	General requirements	
4.1	Material cleanliness	C
4.7	Edges	C
4.8	Points and metallic wires	C
7	Warnings, markings and instructions for use	
7.1	General	C
7.2	Toys not intended for children under 36 months	C

I. EN71 : Part 1 : 2014 (For item M to P)

<u>Clause</u>	<u>Title/Description</u>	<u>Remark*</u>
4	General requirements	
4.1	Material cleanliness	C
4.7	Edges	C
4.8	Points and metallic wires	C
6	Packaging	C
7	Warnings, markings and instructions for use	
7.1	General	C
7.2	Toys not intended for children under 36 months	C



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Test Result :

I. EN71 : Part 1 : 2014 (For items Q and R)

<u>Clause</u>	<u>Title/Description</u>	<u>Remark*</u>
4	General requirements	
4.1	Material cleanliness	C
4.7	Edges	C
4.9	Protruding parts	C
7	Warnings, markings and instructions for use	
7.1	General	C
7.2	Toys not intended for children under 36 months	C

II. EN71 : Part 2 : 2011 + A1 : 2014

<u>Clause</u>	<u>Title/Description</u>	<u>Remark*</u>
4.1	General requirements	C
Note : No cellulose nitrate and material with same behaviour in fire was detected		

* Abbreviation : C = Complied



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III. EN 71 : Part 3 : 2013 + A1 : 2014

Category III – Scraped-off toy material

Element	Migration limit (mg/kg)	Result (mg/kg)					
		Sample					
		1	2	3	4	5	6
Aluminium (Al)	70,000	<100	<100	<100	<100	<100	<100
Antimony (Sb)	560	<5	<5	<5	<5	<5	<5
Arsenic (As)	47	<5	<5	<5	<5	<5	<5
Barium (Ba)	18,750	<20	<20	<20	<20	<20	<20
Boron (B)	15,000	<100	<100	<100	<100	<100	<100
Cadmium (Cd)	17	<5	<5	<5	<5	<5	<5
Chromium (III)	460	<1	<1	<1	<1	<1	<1
Chromium (VI)	0.2	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15
Cobalt (Co)	130	<5	<5	<5	<5	<5	<5
Copper (Cu)	7,700	<5	<5	<5	<5	<5	<5
Lead (Pb)	160	<5	<5	<5	<5	<5	<5
Manganese (Mn)	15,000	<100	<100	<100	<100	<100	<100
Mercury (Hg)	94	<5	<5	<5	<5	<5	<5
Nickel (Ni)	930	<5	<5	<5	<5	<5	<5
Selenium (Se)	460	<5	<5	<5	<5	<5	<5
Strontium (Sr)	56,000	<100	<100	<100	<100	<100	<100
Tin (Sn)	180,000	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Organic tin [#]	12	<8	<8	<8	<8	<8	<8
Zinc (Zn)	46,000	<100	<100	<100	<100	<100	<100



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III. EN 71 : Part 3 : 2013 + A1 : 2014

Category III – Scraped-off toy material

Element	Migration limit (mg/kg)	Result (mg/kg)					
		Sample					
		7	8	9	10	11	12
Aluminium (Al)	70,000	<100	<100	<100	<100	<100	<100
Antimony (Sb)	560	<5	<5	<5	<5	<5	<5
Arsenic (As)	47	<5	<5	<5	<5	<5	<5
Barium (Ba)	18,750	<20	<20	<20	<20	<20	<20
Boron (B)	15,000	<100	<100	<100	<100	<100	<100
Cadmium (Cd)	17	<5	<5	<5	<5	<5	<5
Chromium (III)	460	<1	<1	<1	<1	<1	<1
Chromium (VI)	0.2	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15
Cobalt (Co)	130	<5	<5	<5	<5	<5	<5
Copper (Cu)	7,700	<5	<5	<5	<5	<5	<5
Lead (Pb)	160	<5	<5	<5	<5	<5	<5
Manganese (Mn)	15,000	<100	<100	<100	<100	<100	<100
Mercury (Hg)	94	<5	<5	<5	<5	<5	<5
Nickel (Ni)	930	<5	<5	<5	<5	<5	<5
Selenium (Se)	460	<5	<5	<5	<5	<5	<5
Strontium (Sr)	56,000	<100	<100	<100	<100	<100	<100
Tin (Sn)	180,000	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Organic tin [#]	12	<8	<8	<8	<8	<8	<8
Zinc (Zn)	46,000	<100	<100	<100	<100	<100	<100



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Category III – Scraped-off toy material

Element	Migration limit (mg/kg)	Result (mg/kg)					
		Sample					
		13	14	15	16	17	18
Aluminium (Al)	70,000	<100	<100	<100	<100	<100	<100
Antimony (Sb)	560	<5	<5	<5	<5	<5	<5
Arsenic (As)	47	<5	<5	<5	<5	<5	<5
Barium (Ba)	18,750	<20	<20	<20	<20	<20	<20
Boron (B)	15,000	<100	<100	<100	<100	<100	<100
Cadmium (Cd)	17	<5	<5	<5	<5	<5	<5
Chromium (III)	460	<1	<1	<1	<1	<1	<1
Chromium (VI)	0.2	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15
Cobalt (Co)	130	<5	<5	<5	<5	<5	<5
Copper (Cu)	7,700	<5	<5	<5	<5	<5	<5
Lead (Pb)	160	<5	<5	<5	<5	<5	<5
Manganese (Mn)	15,000	<100	<100	<100	<100	<100	<100
Mercury (Hg)	94	<5	<5	<5	<5	<5	<5
Nickel (Ni)	930	<5	<5	<5	<5	<5	<5
Selenium (Se)	460	<5	<5	<5	<5	<5	<5
Strontium (Sr)	56,000	<100	<100	<100	<100	<100	<100
Tin (Sn)	180,000	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Organic tin [#]	12	<8	<8	<8	<8	<8	<8
Zinc (Zn)	46,000	<100	<100	<100	<100	<100	<100



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III. EN 71 : Part 3 : 2013 + A1 : 2014

Category III – Scraped-off toy material

Element	Migration limit (mg/kg)	Result (mg/kg)			
		Sample			
		19	20	21	22
Aluminium (Al)	70,000	<100	<100	<100	<100
Antimony (Sb)	560	<5	<5	<5	<5
Arsenic (As)	47	<5	<5	<5	<5
Barium (Ba)	18,750	<20	<20	<20	<20
Boron (B)	15,000	<100	<100	<100	<100
Cadmium (Cd)	17	<5	<5	<5	<5
Chromium (III)	460	<1	<1	<1*	<1
Chromium (VI)	0.2	<0.15	<0.15	<0.15*	<0.15
Cobalt (Co)	130	<5	<5	<5	<5
Copper (Cu)	7,700	<5	<5	<5	<5
Lead (Pb)	160	<5	<5	<5	<5
Manganese (Mn)	15,000	<100	<100	<100	<100
Mercury (Hg)	94	<5	<5	<5	<5
Nickel (Ni)	930	<5	<5	<5	<5
Selenium (Se)	460	<5	<5	<5	<5
Strontium (Sr)	56,000	<100	<100	<100	<100
Tin (Sn)	180,000	<2.5	<2.5	<2.5	<2.5
Organic tin [#]	12	<8	<8	<8	<8
Zinc (Zn)	46,000	<100	<100	<100	<100

- Note :
- All results are in mg/kg
 - < denotes less than
 - ≥ denotes greater than or equal to
 - For samples of migrated chromium content lower than migration limit of chromium (VI), no speciation test for chromium (III) and chromium (VI) were conducted. The results were derived from that of total chromium
 - For samples of migrated tin content calculated as tributyl tin lower than migration limit of organic tin, no organic tin test was conducted. Organic tin results were derived from that of total tin
 - *Chromium (VI) test was conducted. Chromium (III) result was calculated by subtracting Chromium (VI) result from Chromium result
 - [#]Organic tin compounds under investigation are limited to methyltin, butyltin, dibutyltin, tributyltin, tetrabutyltin, monooctyltin, dioctyltin, dipropyltin, diphenyltin and triphenyltin. Other organic tin compounds may also be present in toys.



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Category III – Scraped-off toy material

Sample	Description	Sample Weight
1	Red plastic of red parts	≥100 mg
2	Lime plastic of lime parts	≥100 mg
3	Yellow plastic of yellow parts	≥100 mg
4	Sky blue plastic of sky blue parts	≥100 mg
5	Clear yellow plastic of clear yellow parts	≥100 mg
6	Pink plastic of pink parts	≥100 mg
7	Clear blue plastic of clear blue parts	≥100 mg
8	Brown plastic of brown parts	≥100 mg
9	Clear red plastic of clear red parts	≥100 mg
10	White plastic of white parts	≥100 mg
11	Grey plastic of grey parts	≥100 mg
12	Black plastic of black parts	≥100 mg
13	Clear plastic of clear parts	≥100 mg
14	Blue plastic of blue parts	≥100 mg
15	Orange plastic of orange parts	≥100 mg
16	Bright black plastic of shaft of wheels	≥100 mg
17	Dull white plastic of wheel hub of wheel	≥100 mg
18	Dull black soft plastic of tire of wheels	≥100 mg
19	Bright black plastic of large shaft	≥100 mg
20	Dark blue plastic of large wheels	≥100 mg
21	White plastic of headband	≥100 mg
22	Green plastic of green parts	≥100 mg



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Labelled age group : For ages 5 years and up (For item A to M, P, Q, R)

Labelled age group : For ages 7 years and up (For item N,O)

Tested age group : For ages 5 years and up (For item A to M, P)

Tested age group : For ages 7 years and up (For item N, O)

Tested age group : For ages 3 years and up (For item Q, R)

IV. ASTM F963-11

a. Physical and Mechanical Tests (For item A to L)

<u>Clause</u>	<u>Title/Description</u>	<u>Remark*</u>
4.1	Material Quality – Visual Inspection	C
4.6.3	Toys intended for children ≥ 3 years but < 6 years 16 CFR 1500.19 Small objects labeling requirement	C
4.7	Accessible edges 16 CFR 1500.49 Sharp metal or glass edges	C
4.9	Accessible points 16 CFR 1500.48 Sharp points	C
5	Labeling requirements	
5.3	Safety labeling requirements	C
5.11	Small objects, small balls, marbles, and balloons 16 CFR 1500.19	C
5.16	Promotional materials	C
7	Producer's markings	
7.1	Producer's markings	C



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IV. ASTM F963-11

a. Physical and Mechanical Tests (For item M and P)

<u>Clause</u>	<u>Title/Description</u>	<u>Remark*</u>
4.1	Material Quality – Visual Inspection	C
4.6.3	Toys intended for children ≥ 3 years but < 6 years 16 CFR 1500.19 Small objects labeling requirement	C
4.7	Accessible edges 16 CFR 1500.49 Sharp metal or glass edges	C
4.9	Accessible points 16 CFR 1500.48 Sharp points	C
4.12	Plastic film	C
5	Labeling requirements	
5.3	Safety labeling requirements	C
5.11	Small objects, small balls, marbles, and balloons 16 CFR 1500.19	C
5.16	Promotional materials	C
7	Producer's markings	
7.1	Producer's markings	C



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IV. ASTM F963-11

a. Physical and Mechanical Tests (For item N and O)

<u>Clause</u>	<u>Title/Description</u>	<u>Remark*</u>
4.1	Material Quality – Visual Inspection	C
4.7	Accessible edges 16 CFR 1500.49 Sharp metal or glass edges	C
4.9	Accessible points 16 CFR 1500.48 Sharp points	C
4.12	Plastic film	C
5	Labeling requirements	
5.3	Safety labeling requirements	C
5.11	Small objects, small balls, marbles, and balloons 16 CFR 1500.19	C
5.16	Promotional materials	C
7	Producer's markings	
7.1	Producer's markings	C

a. Physical and Mechanical Tests (For items Q and R)

<u>Clause</u>	<u>Title/Description</u>	<u>Remark*</u>
4.1	Material Quality – Visual Inspection	C
4.6.3	Toys intended for children ≥ 3 years but < 6 years 16 CFR 1500.19 Small objects labeling requirement	C
4.7	Accessible edges 16 CFR 1500.49 Sharp metal or glass edges	C
4.9	Accessible points 16 CFR 1500.48 Sharp points	C



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IV. ASTM F963-11

a. Physical and Mechanical Tests (For items Q and R)

<u>Clause</u>	<u>Title/Description</u>	<u>Remark*</u>
5	Labeling requirements	
5.3	Safety labeling requirements	C
5.11	Small objects, small balls, marbles, and balloons 16 CFR 1500.19	C
5.16	Promotional materials	C
7	Producer's markings	
7.1	Producer's markings	C

Remark : The sample(s) were subjected to the use and abuse tests in according with Clause 8.7 Impact test, 8.8 Torque test, 8.9 Tension test, 8.10 Compression test and 8.12 Flexure test whichever was applicable.

Use and abuse test applied

Test	Test Parameters	16 CFR Reference
8.7.1 Drop Test	4 x 3 ft	1500.53(b)(3)
8.8 Torque Test	4 in-lbf	1500.53(e)
8.9 Tension Test	15 lbf	1500.53(f)



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IV. ASTM F963-11

b. Flammability Test (for items A to P only)

<u>Clause</u>	<u>Title/Description</u>	<u>Remark*</u>
4.2	Flammability 16 CFR 1500.3 (c) (6) (vi)	NA

Note : The accessible components of submitted sample having a major dimension of 1 inch or less which are exempted from clause 4.2.

b. Flammability Test (for item Q only)

<u>Clause</u>	<u>Title/Description</u>	<u>Remark*</u>
4.2	Flammability <u>Materials other than textiles</u> <u>Test method: Annex A5 (16 CFR 1500.44)</u>	C

The results of the burning rate of the most severe part = 0.01 in/sec.

The burning rate of the most severe part = 0.0 in/sec.
(Round off to the nearest tenth)

Note : Maximum permissible burning rate = 0.1 in/sec.



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IV. ASTM F963-11

c. Heavy Elements Test

Clause	Title/Description	Remark*
4.3.5.2 (2)(a)	Toy substrate materials, total lead content	C

	Test Item
	Total Lead
Permissible Limit (ppm)	100(**)
Sample	
#23	<15
#24	<15
#25	<15
#26	<15
#27	<15
#28	<15
29	<15
#30	<15
#31	<15

Note :

- (**) 100 ppm limit applies to product produced on or after 14 Aug 2011
- All results are in ppm
- < denotes less than
- # denotes composite sample

Sample	Description
#23	Red plastic of red parts + Lime plastic of lime parts + Yellow plastic of yellow parts
#24	Sky blue plastic of sky blue parts + Clear yellow plastic of clear yellow parts + Pink plastic of pink parts
#25	Clear blue plastic of clear blue parts + Brown plastic of brown parts + Clear red plastic of clear red parts
#26	White plastic of white parts + Grey plastic of grey parts + Black plastic of black parts
#27	Clear plastic of clear parts + Blue plastic of blue parts + Orange plastic of orange parts
#28	Bright black plastic of shaft of wheels + Dull white plastic of wheel hub of wheel
29	Dull black soft plastic of tire of wheels
#30	Bright black plastic of large shaft + Dark blue plastic of large wheels
#31	White plastic of headband + Green plastic of green parts



CMA Testing and Certification Laboratories

廠商會檢定中心

TEST REPORT

Report No : AT0040023(9)

Date: 11 Aug 2015

Application No : LT026502(4)

Test Result :

IV. ASTM F963-11

c. Heavy Elements Test

<u>Clause</u>	<u>Title/Description</u>	<u>Remark*</u>
4.3.5.2 (2)(b)	Toy substrate materials, soluble heavy elements	C

	<u>Test Item</u>							
	As	Hg	Se	Cd	Sb	Pb	Cr	Ba
Maximum Permissible Level (ppm)	25	60	500	75	60	90	60	1000
Sample								
32	<5	<5	<5	<5	<5	<5	<5	<20
33	<5	<5	<5	<5	<5	<5	<5	<20
34	<5	<5	<5	<5	<5	<5	<5	<20
35	<5	<5	<5	<5	<5	<5	<5	<20
36	<5	<5	<5	<5	<5	<5	<5	<20
37	<5	<5	<5	<5	<5	<5	<5	<20
38	<5	<5	<5	<5	<5	<5	<5	<20
39	<5	<5	<5	<5	<5	<5	<5	<20
40	<5	<5	<5	<5	<5	<5	<5	<20
41	<5	<5	<5	<5	<5	<5	<5	<20
42	<5	<5	<5	<5	<5	<5	<5	<20
43	<5	<5	<5	<5	<5	<5	<5	<20
44	<5	<5	<5	<5	<5	<5	<5	<20
45	<5	<5	<5	<5	<5	<5	<5	<20
46	<5	<5	<5	<5	<5	<5	<5	<20
47	<5	<5	<5	<5	<5	<5	<5	<20
48	<5	<5	<5	<5	<5	<5	<5	<20
49	<5	<5	<5	<5	<5	<5	<5	<20
50	<5	<5	<5	<5	<5	<5	<5	<20
51	<5	<5	<5	<5	<5	<5	<5	<20
52	<5	<5	<5	<5	<5	<5	<5	<20
53	<5	<5	<5	<5	<5	<5	<5	<20

Note :

- All results are in ppm
- ppm denotes part per million by weight
- < denotes less than
- ≥ denotes greater than or equal to
- As = Arsenic; Hg = Mercury; Se = Selenium; Cd = Cadmium; Sb = Antimony; Pb = Lead; Cr = Chromium; Ba = Barium



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Test Result :

IV. ASTM F963-11

c. Heavy Elements Test

Clause	Title/Description	Remark*
4.3.5.2 (2)(b)	Toy substrate materials, soluble heavy elements	C

Sample	Description	Sample Weight
32	Red plastic of red parts	≥100 mg
33	Lime plastic of lime parts	≥100 mg
34	Yellow plastic of yellow parts	≥100 mg
35	Sky blue plastic of sky blue parts	≥100 mg
36	Clear yellow plastic of clear yellow parts	≥100 mg
37	Pink plastic of pink parts	≥100 mg
38	Clear blue plastic of clear blue parts	≥100 mg
39	Brown plastic of brown parts	≥100 mg
40	Clear red plastic of clear red parts	≥100 mg
41	White plastic of white parts	≥100 mg
42	Grey plastic of grey parts	≥100 mg
43	Black plastic of black parts	≥100 mg
44	Clear plastic of clear parts	≥100 mg
45	Blue plastic of blue parts	≥100 mg
46	Orange plastic of orange parts	≥100 mg
47	Bright black plastic of shaft of wheels	≥100 mg
48	Dull white plastic of wheel hub of wheel	≥100 mg
49	Dull black soft plastic of tire of wheels	≥100 mg
50	Bright black plastic of large shaft	≥100 mg
51	Dark blue plastic of large wheels	≥100 mg
52	White plastic of headband	≥100 mg
53	Green plastic of green parts	≥100 mg

* Abbreviation : C = Complied
NA = Not Applicable



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TEST REPORT

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Test Result :

V. Lead content in accordance with U.S. Consumer Product Safety Improvement Act of 2008 –
Sec. 101 : Children's Products Containing Lead; Lead Paint Rule

For materials and substrate

	<u>Test Item</u>
	Total Lead
Permissible Limit (mg/kg)	100(*)
Sample	
#54	<15
#55	<15
#56	<15
#57	<15
#58	<15
#59	<15
60	<15
#61	<15
#62	<15

Note :

- (*) 100 ppm limit applies to product produced on or after 14 Aug 2011
- All results are in mg/kg
- < denotes less than
- # denotes composite sample

Sample	Description
#54	Red plastic of red parts + Lime plastic of lime parts + Yellow plastic of yellow parts
#55	Sky blue plastic of sky blue parts + Clear yellow plastic of clear yellow parts + Pink plastic of pink parts
#56	Clear blue plastic of clear blue parts + Brown plastic of brown parts + Clear red plastic of clear red parts
#57	White plastic of white parts + Grey plastic of grey parts + Black plastic of black parts
#58	Clear plastic of clear parts + Blue plastic of blue parts + Orange plastic of orange parts
#59	Bright black plastic of shaft of wheels + Dull white plastic of wheel hub of wheel
60	Dull black soft plastic of tire of wheels
#61	Bright black plastic of large shaft + Dark blue plastic of large wheels
#62	White plastic of headband + Green plastic of green parts



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TEST REPORT

Report No : AT0040023(9)

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Test Result :

VI. Regulation (EC) No. 1907/2006 of the European Parliament and of the Council, Annex XVII, Entry 23 and its amendment Regulation (EU) No. 494/2011 and No. 835/2012 - Cadmium content (formerly Directive 91/338/EEC).

For plastic material

	<u>Test item</u>
	Total Cadmium
Maximum permissible level (mg/kg)	100
Sample	
#63	<5
#64	<5
#65	<5
#66	<5
#67	<5
#68	<5
69	<5
#70	<5
#71	<5

Note : • All results are in mg/kg
• < denotes less than
• # denotes composite sample

Sample	Description
#63	Red plastic of red parts + Lime plastic of lime parts + Yellow plastic of yellow parts
#64	Sky blue plastic of sky blue parts + Clear yellow plastic of clear yellow parts + Pink plastic of pink parts
#65	Clear blue plastic of clear blue parts + Brown plastic of brown parts + Clear red plastic of clear red parts
#66	White plastic of white parts + Grey plastic of grey parts + Black plastic of black parts
#67	Clear plastic of clear parts + Blue plastic of blue parts + Orange plastic of orange parts
#68	Bright black plastic of shaft of wheels + Dull white plastic of wheel hub of wheel
69	Dull black soft plastic of tire of wheels
#70	Bright black plastic of large shaft + Dark blue plastic of large wheels
#71	White plastic of headband + Green plastic of green parts



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TEST REPORT

Report No : AT0040023(9)

Date: 11 Aug 2015

Application No : LT026502(4)

Test Result :

VII & VIII. Regulation (EC) No. 1907/2006 of the European Parliament and of the Council, Annex XVII
- Phthalates contents and U.S. Consumer Product Safety Improvement Act of 2008 - Sec. 108

Sample	Test Item					
	DEHP	DBP	BBP	DINP	DIDP	DNOP
#72	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
#73	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
#74	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
#75	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
#76	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
#77	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
78	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
#79	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
#80	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

Requirement of Regulation (EC) No. 1907/2006, Annex XVII

1. Concentration of DEHP, DBP and BBP of plasticized materials in toys and childcare articles shall not exceed 0.1% by weight.
2. Concentration of DINP, DIDP and DNOP of plasticized materials in toys and childcare articles which can be placed in the mouth by children shall not exceed 0.1% by weight.

Requirement of CPSIA

It shall be unlawful for any person to manufacture for sale, offer for sale, distribute in commerce, or import into the United States :

1. Any children's toy or child care article that contains concentrations of more than 0.1% of DEHP, DBP or BBP.
2. Any children's toy that can be placed in a child's mouth or child care article that contains concentrations of more than 0.1% of DINP, DIDP or DNOP.

- Note :
- All results are in % w/w
 - % w/w denotes percentage by weight
 - < denotes less than
 - # denotes composite sample
 - DEHP = Di (2-ethylhexyl) Phthalate; DBP = Dibutyl Phthalate; BBP = Butyl Benzyl Phthalate; DINP = Diisononyl Phthalate; DIDP = Diisodecyl Phthalate; DNOP = Di-n-octyl Phthalate



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Test Result :

VII & VIII. Regulation (EC) No. 1907/2006 of the European Parliament and of the Council, Annex XVII
- Phthalates contents and U.S. Consumer Product Safety Improvement Act of 2008 - Sec. 108

Sample	Description
"72	Red plastic of red parts + Lime plastic of lime parts + Yellow plastic of yellow parts
"73	Sky blue plastic of sky blue parts + Clear yellow plastic of clear yellow parts + Pink plastic of pink parts
"74	Clear blue plastic of clear blue parts + Brown plastic of brown parts + Clear red plastic of clear red parts
"75	White plastic of white parts + Grey plastic of grey parts + Black plastic of black parts
"76	Clear plastic of clear parts + Blue plastic of blue parts + Orange plastic of orange parts
"77	Bright black plastic of shaft of wheels + Dull white plastic of wheel hub of wheel
78	Dull black soft plastic of tire of wheels
"79	Bright black plastic of large shaft + Dark blue plastic of large wheels
"80	White plastic of headband + Green plastic of green parts