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TESTING  
CNAS L1744

## QIXING TOYS FACTORY

**Technical Report:** (8820)240-0044

Date Received: Aug 27, 2020

Sep 3, 2020

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QIXING TOYS FACTORY  
CHENGHAI DISTRICT, SHANTOU CITY, GUANGDONG  
PROVINCE, CHINA

Sample Description:	RAINBOW RING TOY	Sample Size:	3
Vendor:	N/A	Style No(s):	SEE ATTACHMENT
Manufacturer:	N/A	SKN/SKU No.:	NOT PROVIDE
Labeled Age Grade:	NOT PRESENT	PO No.:	NOT PROVIDE
Appropriate Age Grade:	NOT REQUESTED	Ref #:	NOT PROVIDE
Client Specified Age Grade:	3+		
Tested Age Grade:	OVER 3 YEARS OF AGE	Country of Origin:	NOT PROVIDE
UPC Code:	N/A	Assortment No.:	NOT PROVIDE
Test Starting Date:	AUG 27, 2020	Test Finished Date:	SEP 3, 2020

### EXECUTIVE SUMMARY:

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

- The mechanical hazards requirements of ASTM F963-17, "Standard consumer safety specification for toy safety".
- The flammability requirement of solids under ASTM F963-17 section 4.2 according to Annex A5, "Flammability testing procedure for solids and soft toys".

To be continued

BUREAU VERITAS SHENZHEN CO.,LTD  
DONGGUAN BRANCH

Harvey Xue  
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Supervisor, Toys Lab

RT/Joe Ye

### REMARK

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

Report Enquiry: (86) 0769 89952999 Ext. 8175 CPSAnalytical.DG@bureauveritas.com

Business Contact: (86) 0769 85893595

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**EXECUTIVE SUMMARY:**

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

- The total lead content in surface coating requirements of ASTM F963-17, "Standard consumer safety specification for toy safety", Section 4.3.5.1(1).
- The total lead content in substrate requirements of ASTM F963-17, "Standard consumer safety specification for toy safety", Section 4.3.5.2(2)(a).
- The 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).
- 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: At the request of the client, the sample(s) was evaluated for use by children 3+.

Note: At the request of client, test(s) was conducted on the certain component(s) of the submitted samples(s) / submitted component(s).

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



**ATTACHMENT:**

Style No(s):

MCS1058-(1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20),  
MCS104-(1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20),  
MCS105-(1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20),  
MCS6316-(1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20),  
MCS1038-(1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20),  
MCS1028-(1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20),  
MCS1018-(1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20),  
MCS1019-(1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20),  
MCS8710-(1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20),  
MCS1301-(1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20),  
MCS1302-(1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20),  
MCS1303-(1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20),  
MCS7613/5213/7610/103G/8710G/MCS8709G/MCS7610G,  
MCS6313-A/B/C/D/E/F/G/H/I/J/K/L/M/N/O/P/Q/R/U/Z/V/W/Y/T/S/X,  
MCS8709-(1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20),  
MCS1228-(1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20),  
MCS106-(1A-2A-3A-4A-5A-6A-7A-8A-9A-10A-11A-12A-13A-14A-15A-16A-17A-18A-19A-20A-21A-22A-23A-24A-25A-26A-27A-28A-29A-30A),  
MCS201-(1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26-27-28-29-30),  
MCS106-A/B/C/D/E/F/G/H/I/J/K/L/M/N/O/P/Q/R/U/Z/V/W/Y/T/S/X,  
MCS103-(1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20),  
MCS87-(-9P-1P-2P-3P-4P-5P-6P-7P-8P-10P),  
MCS76-(1P-2P-3P-4P-5P-6P-7P-8P-9P-10P-11P-12P-13P-14P-15P-16P-17P-18P-19P-20P),  
MCS63-(1P-2P-3P-4P-5P-6P-7P-8P-9P-10P-11P-12P-13P-14P-15P-16P-17P-18P-19P-20P),  
MCS52-(1P-2P-3P-4P-5P-6P-7P-8P-9P-10P-11P-12P-13P-14P-15P-16P-17P-18P-19P-20P),  
MCS45-(1P-2P-3P-4P-5P-6P-7P-8P-9P-10P-11P-12P-13P-14P-15P-16P-17P-18P-19P-20P),  
MCS35-(1P-2P-3P-4P-5P-6P-7P-8P-9P-10P-11P-12P-13P-14P-15P-16P-17P-18P-19P-20P-21P-22P-23P-24P-25P-26P-27P-28P-29P-30P-31P-32P-33P-34P-35P-36P-37P-38P-39P-40P-41P-42P-43P-44P-45P-46P-47P-48P-49P-50P-51P-52P-53P-54P-55P-56P-57P-58P-59P-60P),  
MCS87-(1-2-3-4-5-6-7-8-9-10), MCS76-(1-2-3-4-5-6-7-8-9-10), MCS63-(1-2-3-4-5-6-7-8-9-10),  
MCS52-(1-2-3-4-5-6-7-8-9-10), MCS76K-(1-2-3-4-5-6-7-8-9-10), MCS63K-(1-2-3-4-5-6-7-8-9-10),  
MCS52K-(1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20), MCS1020/1021/1022/1023/1017,  
MCS1276-(1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20),  
MCS1276K-(1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20),  
MCS1245-(1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20),  
MCS1245K-(1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20),  
MCS1245X-(1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20),  
MCS173-(1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20),  
MCS153-(1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20),  
MCS133-(1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20),  
MCS133-A/B/C/D/E/F/G/H/I/J/K/L/M/N/O/P/Q/R/U/Z/V/W/Y/T/S/X,  
MCS87-A/B/C/D/E/F/G/H/I/J/K/L/M/N/O/P/Q/R/U/Z/V/W/Y/T/S/X,  
MCS76-A/B/C/D/E/F/G/H/I/J/K/L/M/N/O/P/Q/R/U/Z/V/W/Y/T/S/X,  
MCS63-A/B/C/D/E/F/G/H/I/J/K/L/M/N/O/P/Q/R/U/Z/V/W/Y/T/S/X,  
MCS52-A/B/C/D/E/F/G/H/I/J/K/L/M/N/O/P/Q/R/U/Z/V/W/Y/T/S/X,  
MCS45-A/B/C/D/E/F/G/H/I/J/K/L/M/N/O/P/Q/R/U/Z/V/W/Y/T/S/X,  
MCS35-A/B/C/D/E/F/G/H/I/J/K/L/M/N/O/P/Q/R/U/Z/V/W/Y/T/S/X,  
MCS101-(1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26-27-28-29-30),



**ATTACHMENT:**

Style No(s):

MCS102-(1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26-27-28-29-30),  
MCS101-(1A-2A-3A-4A-5A-6A-7A-8A-9A-10A-11A-12A-13A-14A-15A-16A-17A-18A-19A-20A-21A-22A-23A-24A-25A-26A-27A-28A-29A-30A),  
MCS1552-A/B/C/D/E/F/G/H/I/J/K/L/M/N/O/P/Q/R/U/Z/V/W/Y/T/S/X,  
MCS106-(1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26-27-28-29-30),  
MCS107-(1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26-27-28-29-30),  
MCS107-A/B/C/D/E/F/G/H/I/J/K/L/M/N/O/P/Q/R/U/Z/V/W/Y/T/S/X,  
MCS1260-(1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26-27-28-29-30),  
MCS1306-A/B/C/D/E/F/G/H/I/J/K/L/M/N/O/P/Q/R/U/Z/V/W/Y/T/S/X, GX2211, TY7842,  
MCS102-(1A-2A-3A-4A-5A-6A-7A-8A-9A-10A-11A-12A-13A-14A-15A-16A-17A-18A-19A-20A-21A-22A-23A-24A-25A-26A-27A-28A-29A-30A),  
MCS106-(1B-2B-3B-4B-5B-6B-7B-8B-9B-10B-11B-12B-13B-14B-15B-16B-17B-18B-19B-20B-21B-22B-23B-24B-25B-26B-27B-28B-29B-30B),  
MCS106-(1C-2C-3C-4C-5C-6C-7C-8C-9C-10C-11C-12C-13C-14C-15C-16C-17C-18C-19C-20C-21C-22C-23C-24C-25C-26C-27C-28C-29C-30C),  
MCS301-(1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26-27-28-29-30),  
MCS101-A/B/C/D/E/F/G/H/I/J/K/L/M/N/O/P/Q/R/U/Z/V/W/Y/T/S/X,  
MCS102-A/B/C/D/E/F/G/H/I/J/K/L/M/N/O/P/Q/R/U/Z/V/W/Y/T/S/X,  
MCS1752/1852/1952, MCS7000-A/B/C/D/E/F/G/H/I/J/K/L/M/N/O/P/Q/R/U/Z/V/W/Y/T/S/X,  
MCS7001/7002/7003/7004/7005/7006/7007/7008/7009/7010/7011/7012/7013/7014/7015/7016/7017/7018/7019/7020,  
MCS7021/7022/7023/7024/7025/7026/7027/7028/7029/7030/7031/7032/7033/7034/7035/7036/7037/7038/7039/7040,  
MCS7041/7042/7043/7044/7045/7046/7047/7048/7049/7050/7051/7052/7053/7054/7055/7056/7057/7058/7059/7060,  
MCS521A/B/C/D/E/F/G/H/I/J/K/L/M/N/O/P/Q/R/U/Z/V/W/Y/T/S/X,  
MCS1263-(1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20),  
MCS1263K-(1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20),  
MCS1252K-(1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20),  
MCS1235-(1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20),  
MCS1238-(1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20),  
MCS1258-(1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20), MCS2018/MCS2048/MCS2058/MCS2035,  
MCS1068A/B/C/D/E/F/G/H/I/J/K/L/M/N/O/P/Q/R/U/Z/V/W/Y/T/S/X,  
MCS1058A/B/C/D/E/F/G/H/I/J/K/L/M/N/O/P/Q/R/U/Z/V/W/Y/T/S/X,  
MCS36-(1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20),  
MCS202-(1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26-27-28-29-30),  
MCS203-(1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26-27-28-29-30),  
MCS204-(1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26-27-28-29-30),  
MCS205-(1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26-27-28-29-30),  
MCS2028-A/B/C/D/E/F/G/H/I/J/K/L/M/N/O/P/Q/R/U/Z/V/W/Y/T/S/X,  
MCS2038-A/B/C/D/E/F/G/H/I/J/K/L/M/N/O/P/Q/R/U/Z/V/W/Y/T/S/X,  
MCS153-A/B/C/D/E/F/G/H/I/J/K/L/M/N/O/P/Q/R/U/Z/V/W/Y/T/S/X,  
MCS103-A/B/C/D/E/F/G/H/I/J/K/L/M/N/O/P/Q/R/U/Z/V/W/Y/T/S/X,  
MCS7610-A/B/C/D/E/F/G/H/I/J/K/L/M/N/O/P/Q/R/U/Z/V/W/Y/T/S/X,  
MCS7610-(1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20),  
MCS127-(1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20),  
MCS127A/B/C/D/E/F/G/H/I/J/K/L/M/N/O/P/Q/R/U/Z/V/W/Y/T/S/X



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**Tested Component(s) Description List:**

Test Item(s)	Item / Component Description(s)	Location(s)	Style(s)
I001	Black Coating	Black Ring	-
I002	Pink plastic	Big Rainbow Ring	-
I003	Green plastic	Medium Rainbow Ring	-
I004	Yellow plastic	Small Rainbow Ring	-



**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)



**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	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



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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	Ignited but Self-Extinguished.





**RESULTS:**

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**Total Lead Content in Surface Coating – ASTM International Standard ASTM F963-17, Section 4.3.5.1(1)**

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Test Method : ASTM International Standard ASTM F963-17, Section 8.3.1 and Annex A7.

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Maximum Allowable Limit :	90 mg/kg		
Test Item(s)	Result	Unit	Conclusion
	Total Lead (Pb)		
I001	ND	mg/kg	PASS

Note / key:

ND = Not detected

mg/kg = milligram(s) per kilogram

Detection Limit (mg/kg) : 10



**RESULTS:**

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**Total Lead Content in Substrate – ASTM International Standard ASTM F963-17, Section 4.3.5.2(2)(a)**

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Test Method : ASTM International Standard ASTM F963-17, Section 8.3.1 and Annex A7.

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Maximum Allowable Limit :	100 mg/kg
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Test Item(s)	Result	Unit	Conclusion
	Total Lead (Pb)		
I002	ND	mg/kg	PASS
I003	ND	mg/kg	PASS
I004	ND	mg/kg	PASS

Note / key:

ND = Not detected

mg/kg = milligram(s) per kilogram

Detection Limit (mg/kg) : 10



**RESULTS:**

**Soluble Heavy Metals Content in Surface Coating –ASTM F963-17, Section 4.3.5.1(2)**

Test Method : ASTM International Standard ASTM F963-17, Section 8.3.2 to 8.3.4

Analyte	As	Ba	Cd	Cr	Hg	Pb	Sb	Se
Max. Limit (mg/kg)	25	1000	75	60	60	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
Test Item(s)	Result (mg/kg)								(g)	
I001	ND	ND	ND	ND	ND	ND	ND	ND	0.0403	PASS

Note / key:

As = Arsenic                      Ba = Barium                      Cd = Cadmium                      Cr = Chromium  
 Hg = Mercury                      Pb = Lead                      Sb = Antimony                      Se = Selenium  
 ND = Not detected                      g = gram(s)                      % = percent  
 mg/kg = milligram(s) per kilogram  
 Detection Limit (mg/kg) : As : 2.5; Ba : 100; Cd : 7.5; Each (Cr, Hg, & Sb) : 6.0; Pb : 9.0; Se : 50



**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	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
Test Item(s)	Result (mg/kg)								(g)	
Type I: Substrate other than modeling clay										
I002	ND	ND	ND	ND	ND	ND	ND	ND	-	PASS
I003	ND	ND	ND	ND	ND	ND	ND	ND	-	PASS
I004	ND	ND	ND	ND	ND	ND	ND	ND	-	PASS

Note / key:

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

**RESULTS:**



END OF REPORT