



STC Test Report

Date : 2013-05-15
No. : HP256624

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Applicant (RET008) : Recent Toys
1001 JE Amsterdam
The Netherlands

Attn: Uwe Meffert

Description of Samples : Six sets of submitted sample said to be:
GEAR SHIFT (see attached photo)

Date Samples Received : 2013-04-30

Date Tested : 2013-04-30 to 2013-05-10

Investigation Requested :

- (1) ASTM Standard Consumer Safety Specification on Toy Safety, F963-11:
 - physical and mechanical tests
 - flammability test
 - heavy metals content
- (2) Title 16, Code of Federal Regulations, CPSC of U.S.A.
 - physical and mechanical test
- (3) USA Consumer Product Safety Improvement Act
 - Sec. 101(a): Children's products containing lead - Total lead content for substrate
 - Sec. 101 (f) and 16 CFR 1303: Children's products containing lead - Total lead content in paint and surface coating
- (4) European Standard for Safety of Toys
 - EN71-1:2011
 - EN71-2:2011
 - EN71-3:1994, amendment A1:2000/AC:2002



WONG Wing-cheung, Benny
Authorized Signatory
Toys & Children's Products Department
For and on behalf of
The Hong Kong Standards and Testing Centre Ltd.

The Hong Kong Standards and Testing Centre Ltd.

10 Dai Wang Street, Taipo Industrial Estate, N.T., Hong Kong
Tel: (852) 26661888 Fax: (852) 26644353 E-mail: hkstc@hkstc.org Homepage: www.hkstc.org

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Conclusions

- : ASTM F963-11: physical and mechanical tests
The submitted sample complied with the test requirement.
- ASTM F963-11: flammability test
The submitted sample complied with the test requirement.
- ASTM F963-11: heavy metals content
The submitted sample complied with the test requirement.
- USA Consumer Product Safety Improvement Act, Sec. 101(a):
Total lead content for substrate in children's products
The submitted sample complied with the test requirement.
- USA Consumer Product Safety Improvement Act, Sec. 101 (f) and
16 CFR 1303: Total lead content in paint and surface coating
The submitted sample complied with the test requirement.
- EN71-1:2011
The submitted sample complied with the test requirement.
- EN71-2:2011
The submitted sample complied with the test requirement.
- EN71-3:1994, amendment A1:2000/AC:2002
The submitted sample complied with the test requirement.

A handwritten signature in blue ink, appearing to read 'Wong Wing-cheung', is written over a horizontal line.

WONG Wing-cheung, Benny
Authorized Signatory
Toys & Children's Products Department
For and on behalf of
The Hong Kong Standards and Testing Centre Ltd.

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AGE GRADING:

The sample was appropriately age graded with the marking of "AGES 7 TO 99".

AGE GRADING FOR TESTING:

36 months and up.

Test Results :

1. ASTM F963-11

1.1 Mechanical and physical hazards

Ref.: ASTM F963-11

Applicable requirements before and after use and abuse testing:

<u>Applicable Section</u>	<u>Description</u>	<u>Result</u>
4	<u>Safety requirements</u>	
4.1	Material quality (by visual assessment)	Pass
4.2	Flammability	Pass* ¹
4.3	Toxicology	Pass* ¹
4.7	Accessible edges	Pass
4.9	Accessible points	Pass
4.11	Nails and fasteners	Pass
5	<u>Labeling requirements</u>	
5.2	Age grading labeling	Pass
5.16	Promotional materials	Pass
7	<u>Producer's markings</u>	
7.1	Name and address of the producer or distributor	Pass

Use and abuse testing:

<u>Applicable section</u>	<u>Description</u>	<u>Test Condition</u>
8.5	Normal use testing	
8.6	Abuse testing	
8.7	Impact tests	4 drops at 3 ft.
8.8	Torque tests	4 in-lbs.
8.9	Tension tests	15 lbs.
8.10	Compression tests	30 lbs.

*¹ = Refer to the relevant test results at the following pages.

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1.2 Flammability test of material other than textiles

Ref.: ASTM F963-11 Section 4.2
Method used: FHSA 16 CFR 1500.44
Result: Pass

Burn rate: 0.02 in/sec.

Note: The burning rate should not be greater than 0.1 inch per second.

1.3 Heavy element

Ref.: ASTM F963-11 Section 4.3.5
Method: ASTM F963-11 Section 8.3
Determined by: Inductively Coupled Argon Plasma Atomic Emission Spectrophotometer

Paint and Similar Surface-Coating Materials

Ref.: ASTM F963-11 Section 4.3.5.1

Coating material (see Note 1)

- (a) Stickers : light orange (28mg)
- (b) Stickers : orange (25mg)
- (c) Stickers : green (26mg)
- (d) Stickers : yellow (20mg)
- (e) Stickers : blue (23mg)
- (f) Stickers : pink (30mg)

Sample	Total Lead content, ppm
(a)	<10
(b)	<10
(c)	<10
(d)	<10
(e)	<10
(f)	<10
Limit	90

Sample	Soluble heavy metal content, ppm							
	Lead	Cadmium	Chromium	Barium	Antimony	Arsenic	Mercury	Selenium
(a)	<2	<2	<2	62	<2	<2	<2	<2
(b)	<2	<2	<2	26	<2	<2	<2	<2
(c)	<2	<2	<2	36	<2	<2	<2	<2
(d)	<2	<2	<2	42	<2	<2	<2	<2
(e)	<2	<2	<2	5	<2	<2	<2	<2
(f)	<2	<2	<2	90	<2	<2	<2	<2
Limit	90	75	60	1000	60	25	60	500

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Toys Substrate Materials

Ref.: ASTM F963-11 Section 4.3.5.2

Polymeric material

- (a) Base : black
- (b) Stickers : transparent plastic with black coating at the base
- (c) Stickers : white

Sample	Total Lead content, ppm
(a)	<10
(b)	<10
(c)	<10
Limit	100

Sample	Soluble heavy metal content, ppm							
	Lead	Cadmium	Chromium	Barium	Antimony	Arsenic	Mercury	Selenium
(a)	<2	<2	<2	<2	<2	<2	<2	<2
(b)	<2	<2	<2	2	<2	<2	<2	<2
(c)	<2	<2	<2	17	<2	<2	<2	<2
Limit	90	75	60	1000	60	25	60	500

Note1: There were insufficient sample to produce the test portion of 100 mg in one sample for soluble metal test. According to the Standard, the quantities of the elements were calculated as if 100 mg of test portion had been used. The actual weights of the specified samples used for analysis was shown in brackets.

ppm = mg/kg (milligram per kilogram)

mg = milligram

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2. Mechanical and physical hazards

Ref.: 16 CFR 1500.51 - 53

Applicable requirements before and after use and abuse testing:

<u>Part</u>	<u>Description</u>	<u>Result</u>
16 CFR 1500.48	Requirements for sharp points	Pass
16 CFR 1500.49	Requirements for sharp edges	Pass
16 CFR 1501	Requirements for small parts	NA

Use and abuse testing:

Ref.: Part 16 CFR 1500.51 - 53

<u>Applicable test</u>	<u>Condition</u>
Impact test	4 drops at 3ft.
Torque test	4 in-lbs.
Tension test	15 lbs.
Compression test	30 lbs.

NA = Test not applicable.

3. USA Consumer Product Safety Improvement Act

3.1 Children's products containing lead - Total lead content in substrate

Ref.: CPSIA Sec 101(a).

Determined by: Inductively Coupled Argon Plasma Atomic Emission Spectrophotometer

Polymeric material/Paper and Board/Textile

Test method: Standard operation procedure for determining total lead (Pb) in non-metal children's products, CPSC-CH-E1002-08.1

- (a) Base : black
- (b) Stickers : transparent plastic with black coating at the base
- (c) Stickers : white

Sample No.	Total lead content, ppm
(a)	<10
(b)	<10
(c)	<10
Limit	100

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- 3.2 Children's products containing lead - Total lead content in paint and surface coating
Ref.: CPSIA Sec. 101 (f) and 16 CFR 1303.
Test method: CPSC-CH-E 1003-09.1
Determined by: Inductively Coupled Argon Plasma Atomic Emission Spectrophotometer

Coating material

- (a) Stickers : light orange
- (b) Stickers : orange
- (c) Stickers : green
- (d) Stickers : yellow
- (e) Stickers : blue
- (f) Stickers : pink

Sample No.	Total lead content, ppm
(a)	<10
(b)	<10
(c)	<10
(d)	<10
(e)	<10
(f)	<10
Limit	90

Remark

- ppm = part per million which is equivalent to milligram per kilogram (mg/kg)
- < = less than

4. EN71

4.1 EN71-1:2011 - Part 1: Mechanical and physical properties

<u>Applicable Clause</u>	<u>Description</u>	<u>Result</u>
4	<u>General requirements</u>	
4.1	Materials cleanliness	Pass
4.7	Edges	Pass
4.8	Points and metallic wires	Pass
7	<u>Markings and instructions for use</u>	
7.1	General	Pass

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4.2 EN71-2:2011 - Part 2: Flammability

<u>Applicable Clause</u>	<u>Description</u>	<u>Result</u>
4.1	General requirements	Pass

4.3 EN71-3:1994, amendment A1:2000/AC:2002 - Part 3: Migration of certain elements
Method used: Inductively Coupled Argon Plasma Atomic Emission Spectrophotometer

Coating material (see Note 2)

- (a) Stickers : light orange (28mg)
- (b) Stickers : orange (25mg)
- (c) Stickers : green (26mg)
- (d) Stickers : yellow (20mg)
- (e) Stickers : blue (23mg)
- (f) Stickers : pink (30mg)

Polymeric material

- (g) Base : black
- (h) Stickers : transparent plastic with black coating at the base
- (i) Stickers : white

Sample no.	Soluble heavy metal content, mg/kg							
	lead	Cadmium	Chromium	Barium	Antimony	Arsenic	Mercury	Selenium
(a)	<2	<2	<2	62	<2	<2	<2	<2
(b)	<2	<2	<2	26	<2	<2	<2	<2
(c)	<2	<2	<2	36	<2	<2	<2	<2
(d)	<2	<2	<2	42	<2	<2	<2	<2
(e)	<2	<2	<2	5	<2	<2	<2	<2
(f)	<2	<2	<2	90	<2	<2	<2	<2
(g)	<2	<2	<2	<2	<2	<2	<2	<2
(h)	<2	<2	<2	2	<2	<2	<2	<2
(i)	<2	<2	<2	17	<2	<2	<2	<2
Limit	90	75	60	1000	60	25	60	500

Note2: There were insufficient sample to produce the test portion of 100 mg in one sample for soluble metal test. According to the Standard, the quantities of the elements were calculated as if 100 mg of test portion had been used. The actual weights of the specified samples used for analysis was shown in brackets.

mg/kg = milligram per kilogram

mg = milligram

***** End of Test Report *****

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Appendix for Photos of the Submitted Sample



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