



Greater China

Choose certainty.
Add value.

Technical Report No. 68.161.15.02829.01
Dated 2015-09-08

Applicant: SHENZHEN EAGLE CREATION TOYS CO.,LTD

Address: 1013,Huatong Building, 2127 Sungang East Road, Louhu, Shenzhen, China

Attn.: Ms. Carole

Sample Description: Wooden trains and wooden track set

Model No.: CTA Blue Line MP03-11BL, CTA Red Line MP03-11RD, NYC 1-train MP01-1101, NYC 7-Train MP01-1107, NYC a-train MP01-110A, NYC C-train MP01-110C, NYC F-Train MP01-110F, NYC Midtown Station Track Set MP01-51MT

Supplier: SHENZHEN EAGLE CREATION TOYS CO.,LTD

Buyer: Fay Graphic Deasign Ltd.

Age Grading for Testing: Over 3 years

Labelled Age Grading: Ages 3 and older For Track
Not declared For Train

Appropriate Age Grading: Over 3 years

Applicant's requested Age Grading: Not Specify

Country of Origin: China

Exported to: USA

Sample Receive Date: 2015-08-24, 2015-09-01

Test Period: From 2015-08-31 to 2015-09-06

Test Requested and Conclusion: **Standard Consumer Safety Specification for Toy Safety ASTM F963-11**

(1) Mechanical and Physical Properties	PASS
(2) Flammability	PASS
(3) Soluble Migrated Elements Content	PASS
(4) Total Lead Content	PASS

No extract, abridgment or abstraction from a test report may be published or used to advertise a product without the written consent of the Director of TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch. The results contained herein apply only to the particular sample tested and to the specific test carried out and not to samples of the current production line.

TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12&13, Zhiheng Wisdomland Business Park,
Nantou Checkpoint Road 2, Nanshan District,
Shenzhen City, 518052, P.R. China

Tel.: (86) 755 88286998
Fax: (86) 755 88285299



Greater China

Choose certainty.
Add value.

Technical Report No. 68.161.15.02829.01
Dated 2015-09-08

CPSIA

- | | |
|---|-------------|
| (5) Total Lead (Pb) Content
Consumer Product Safety Improvement Act of
2008 (Sec 101) | PASS |
| (6) Phthalates (DEHP, DBP, BBP, DINP,
DIDP ,DNOP and DnHP) Content
Consumer Product Safety Improvement Act of
2008 (Sec 108) | PASS |

Test Results: Refer to following page(s)

Remark: The result relates only to the items tested.



No extract, abridgment or abstraction from a test report may be published or used to advertise a product without the written consent of the Director of TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch. The results contained herein apply only to the particular sample tested and to the specific test carried out and not to samples of the current production line.

TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12&13, Zhiheng Wisdomland Business Park,
Nantou Checkpoint Road 2, Nanshan District,
Shenzhen City, 518052, P.R. China

Tel.: (86) 755 88286998
Fax: (86) 755 88285299



Greater China

Choose certainty.
Add value.

Technical Report No. 68.161.15.02829.01
Dated 2015-09-08

1. TESTED SUBJECT DESCRIPTION




SAMPLE NUMBER	TESTED MATERIAL DESCRIPTION	PHOTO
001	Silvery w/ multi-color coating (Pattern of train)	
002	Black coating (Base)	
003	Transparent lacquer w/ multi-color coating (Pattern on board)	
004	Black plastic wheel	
005	Silvery metal big cover (Front & back)	
006	Silvery metal small cover (Wheel)	
007	Silvery metal rivet (Bottom)	
008	Silvery metal shaft (Connect)	
009	Red coating (Pattern)	
010	White coating (Pattern)	



Greater China

Choose certainty.
Add value.

Technical Report No. 68.161.15.02829.01
Dated 2015-09-08

SAMPLE NUMBER	TESTED MATERIAL DESCRIPTION	PHOTO
011	Multi-color coating on paper (Catalog)	
012	White w/ red coating (Pattern)	
013	Finished product	



Greater China

Choose certainty.
Add value.

Technical Report No. 68.161.15.02829.01

Dated 2015-09-08

2. TEST RESULTS

2.1. MECHANICAL AND PHYSICAL PROPERTIES

Test method: with reference to ASTM F963-11

Test Sample: 013

CLAUSE	TITLE/DESCRIPTION	ASSESSMENT
4	Safety Requirements	--
4.1	Material Quality (Visual Assessment)	PASS
4.7	Accessible Edges	PASS
4.8	Projections	PASS
4.9	Accessible Points	PASS
4.11	Nails and Fasteners	PASS
4.17	Wheels, Tires, and Axles	PASS
4.38	Magnets	PASS
5	Labeling Requirements	--
5.16	Promotional Materials	PASS
6	Instructional Literature	--
6.1	Definition and Description	PASS
7	Producer's Markings	--
7.1	Name and Address of the Producer or the Distributor	PASS

Note:

- Only applicable clause was shown

2.2. FLAMMABILITY

Test method: with reference to ASTM F963-11

Test Sample: 013

CLAUSE	TITLE/DESCRIPTION	ASSESSMENT
4.2	Flammability - Materials used in toys shall not be flammable. The results of the burning rate of the most severe part= IBE IBE=Ignited but self-extinguished before burn-rate could be determined	PASS

Note:

- Only applicable clauses were shown
- Maximum permissible burning rate = 0.1 in/sec.
- (All styles of) the sample (and its accessories) were tested, the above result only showed the most severe burn rate.



Greater China

Choose certainty.
Add value.**Technical Report No. 68.161.15.02829.01**
Dated 2015-09-08**2.3. SOLUBLE MIGRATED ELEMENTS CONTENT**

For Paint and Similar Surface-Coating Materials:

Test method: With reference to ASTM F 963-11 Section 8.3.2 Heavy metal analysis was determined by Inductively Coupled Plasma Optical Emission Spectrometry (ICP-OES). [Reporting Limit: 2.5mg/kg for As and 5 mg/kg for other heavy metals]

TEST ITEM	RESULT [mg/kg]			MAXIMUM LIMIT [mg/kg]
	SAMPLE 001	SAMPLE 002	SAMPLE 003	
Soluble Lead (Pb)	< 5	< 5	< 5	90
Soluble Antimony (Sb)	< 5	< 5	< 5	60
Soluble Arsenic (As)	< 2.5	< 2.5	< 2.5	25
Soluble Barium (Ba)	9.2	7.9	< 5	1000
Soluble Cadmium (Cd)	< 5	< 5	< 5	75
Soluble Chromium (Cr)	< 5	< 5	< 5	60
Soluble Mercury (Hg)	< 5	< 5	< 5	60
Soluble Selenium (Se)	< 5	< 5	< 5	500

TEST ITEM	RESULT [mg/kg]		MAXIMUM LIMIT [mg/kg]
	SAMPLE 011	SAMPLE 012	
Soluble Lead (Pb)	< 5	< 5	90
Soluble Antimony (Sb)	< 5	< 5	60
Soluble Arsenic (As)	< 2.5	< 2.5	25
Soluble Barium (Ba)	8.6	< 5	1000
Soluble Cadmium (Cd)	< 5	< 5	75
Soluble Chromium (Cr)	< 5	< 5	60
Soluble Mercury (Hg)	< 5	< 5	60
Soluble Selenium (Se)	< 5	< 5	500

Note:

- "mg/kg" denotes milligram per kilogram
- "<" denotes less than
- Result shown is adjusted analytical result.
- Limit is quoted from ASTM F963-11 Clause 4.3.5.2.



Greater China

Choose certainty.
Add value.**Technical Report No. 68.161.15.02829.01****Dated 2015-09-08**For Substrate Materials:

Test method: With reference to ASTM F 963-11 Section 8.3.5 Heavy metal analysis was determined by Inductively Coupled Plasma Optical Emission Spectrometry (ICP-OES). [Reporting Limit: 2.5mg/kg for As and 5 mg/kg for other heavy metals]

TEST ITEM	RESULT [mg/kg]	MAXIMUM LIMIT [mg/kg]
	SAMPLE 004	
Soluble Lead (Pb)	< 5	90
Soluble Antimony (Sb)	< 5	60
Soluble Arsenic (As)	< 2.5	25
Soluble Barium (Ba)	< 5	1000
Soluble Cadmium (Cd)	< 5	75
Soluble Chromium (Cr)	< 5	60
Soluble Mercury (Hg)	< 5	60
Soluble Selenium (Se)	< 5	500

Note:

- "mg/kg" denotes milligram per kilogram
- "<" denotes less than
- Result shown is adjusted analytical result.
- Limit is quoted from ASTM F963-11 Clause 4.3.5.2.

2.4. TOTAL LEAD CONTENT (ASTM F963-11)For Paint and Similar Surface-Coating Materials:

Test method: With reference to ASTM F 963-11 Section 8.3.1 Heavy metal analysis was determined by Inductively Coupled Plasma Optical Emission Spectrometry (ICP-OES). [Reporting Limit: 10 mg/kg]

TEST ITEM	RESULT [mg/kg]			MAXIMUM LIMIT [mg/kg]
	SAMPLE 001	SAMPLE 002	SAMPLE 003	
Total Lead (Pb)	< 10	< 10	< 10	90

TEST ITEM	RESULT [mg/kg]		MAXIMUM LIMIT [mg/kg]
	SAMPLE 009+010	SAMPLE 011	
Total Lead (Pb)	< 10	< 10	90

Note:

- "mg/kg" denotes milligram per kilogram
- "<" denotes less than
- Paint and other similar surface-coating materials applied to toys shall comply with the lead content provisions of 16 CFR 1303, issued under the Consumer Product Safety Act (CPSA) as amended by the Consumer Product Safety Improvement Act of 2008 (CPSIA).



Greater China

Choose certainty.
Add value.

Technical Report No. 68.161.15.02829.01

Dated 2015-09-08

For Substrate Materials:

Test method: With reference to ASTM F 963-11 Section 8.3.1 Heavy metal analysis was determined by Inductively Coupled Plasma Optical Emission Spectrometry (ICP-OES). [Reporting Limit: 10 mg/kg]

TEST ITEM	RESULT [mg/kg]			MAXIMUM LIMIT [mg/kg]
	SAMPLE 004	SAMPLE 005	SAMPLE 006	
Total Lead (Pb)	< 10	< 10	< 10	100

TEST ITEM	RESULT [mg/kg]		MAXIMUM LIMIT [mg/kg]
	SAMPLE 007	SAMPLE 008	
Total Lead (Pb)	< 10	< 10	100

Note:

- "mg/kg" denotes milligram per kilogram
- "<" denotes less than
- Accessible component parts of children's products must not contain lead or lead compounds in which the lead content (calculated as lead metal [Pb]) is in excess of 100 ppm of the weight of the component, except as provided under 16 CFR 1500.88 and 16 CFR 1500.91.

2.5. TOTAL LEAD CONTENT (CPSIA)

For surface coating:

Test method: With reference to CPSC-CH-E1003-09.1, analyzed by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES). [Reporting Limit: 10mg/kg]

TEST ITEM	RESULT [mg/kg]			MAXIMUM LIMIT [mg/kg]
	SAMPLE 001	SAMPLE 002	SAMPLE 003	
Total Lead (Pb)	< 10	< 10	< 10	90

TEST ITEM	RESULT [mg/kg]		MAXIMUM LIMIT [mg/kg]
	SAMPLE 009+010	SAMPLE 011	
Total Lead (Pb)	< 10	< 10	90

Note:

- "mg/kg" denotes milligram per kilogram
- "<" denotes less than



Greater China

Choose certainty.
Add value.**Technical Report No. 68.161.15.02829.01****Dated 2015-09-08**For substrate:

Test method: With reference to CPSC-CH-E1001-08.3(for metal) or CPSC-CH-E1002-08.3(for non metal), analyzed by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES). [Reporting Limit: 10mg/kg]

TEST ITEM	RESULT [mg/kg]			MAXIMUM LIMIT [mg/kg]
	SAMPLE 004	SAMPLE 005	SAMPLE 006	
Total Lead (Pb)	< 10	< 10	< 10	100

TEST ITEM	RESULT [mg/kg]		MAXIMUM LIMIT [mg/kg]
	SAMPLE 007	SAMPLE 008	
Total Lead (Pb)	< 10	< 10	100

Note:

- "mg/kg" denotes milligram per kilogram
- "<" denotes less than

2.6. PHTHALATES CONTENT

Test method: With reference to CPSC-CH-C1001-09.3, extracted by organic solvent and analyzed by Gas Chromatography and Mass Spectrometry (GC-MS). [Reporting limit: 0.005%]

TEST ITEM	RESULT [%]		
	SAMPLE 001	SAMPLE 002	SAMPLE 003
Di(2-ethylhexyl) phthalate (DEHP)	<0.005	0.018	<0.005
Dibutyl phthalate (DBP)	<0.005	<0.005	0.014
Benzyl butyl phthalate (BBP)	<0.005	<0.005	<0.005
Di-isononyl phthalate (DINP)	<0.005	<0.005	<0.005
Di-isodecyl phthalate (DIDP)	<0.005	<0.005	<0.005
Di-n-octyl phthalate (DNOP)	<0.005	<0.005	<0.005

Note:

- "%" denotes percent by weight
- "<" denotes less than
- Limit according to Consumer Product Safety Improvement Act (CPSIA) 2008: In toys and childcare articles, concentration of each individual DEHP, DBP or BBP shall not be greater than 0.1% by weight; In toys which can be placed in the mouth and childcare articles, concentration of each individual DINP, DIDP or DNOP shall not be greater than 0.1% by weight.



Greater China

Choose certainty.
Add value.

Technical Report No. 68.161.15.02829.01
Dated 2015-09-08

(Continued)

TEST ITEM	RESULT [%]		
	SAMPLE 004	SAMPLE 009+010	SAMPLE 011
Di(2-ethylhexyl) phthalate (DEHP)	<0.005	<0.005	<0.005
Dibutyl phthalate (DBP)	<0.005	<0.005	<0.005
Benzyl butyl phthalate (BBP)	<0.005	<0.005	<0.005
Di-isononyl phthalate (DINP)	<0.005	<0.005	<0.005
Di-isodecyl phthalate (DIDP)	<0.005	<0.005	<0.005
Di-n-octyl phthalate (DNOP)	<0.005	<0.005	<0.005

Note:

- “%” denotes percent by weight
- “<” denotes less than
- Limit according to Consumer Product Safety Improvement Act (CPSIA) 2008: In toys and childcare articles, concentration of each individual DEHP, DBP or BBP shall not be greater than 0.1% by weight; In toys which can be placed in the mouth and childcare articles, concentration of each individual DINP, DIDP or DNOP shall not be greater than 0.1% by weight.

TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch

Prepared by:

Eva Liang
Project Coordinator



Reviewed by:

Marlon Zeng
Project Manager