



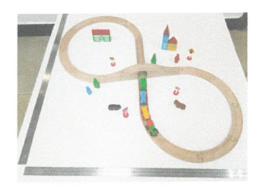


**Test Report** 

No. T19030005

Date:March 9, 2019

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Applicant:

Private Label Department of Guang Sheng M&P manufacturing Co., Ltd

Applicant Date:

March 6, 2019

Contact Person:

Shigun Cao

Email:

bm@guangshendg.com

Phone:

86-769-86061888

Name of Product/Item:	37 PCS TRAIN SET
Evaluation:	Product
Country of Origin:	CHINA
Material Type :	Wood, Metal, Plastic, Magnet
Label Age Grading:	3+
Sample Size :	2 Sets
Batch/Date Code on Prod:	/

Signed for and on behalf of

Laboratory of Guang Sheng M&P Manufacturing Co., Ltd

Supervisor of Laboratory

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Tested Sample	Standard/Criteria	Result			
	CPSIA Total lead content in substrate (Metal)				
	CPSIA Total lead content in surface coating	Pass			
	CPSIA Total lead content in substrate (Non-metal)				
Submitted sample sets	16 CFR 1307 Prohibition of Children's Toys and Child Care Articles Containing Specified Phthalates	Pass			
	REACH Regulation(EC)(1907/2006/EC)Annex XVII and its Amendments-Phthalates Content	Pass			
	EN 71-3:2013+A3:2018-Safety of Toys-Part 3:Migration of Certain Elements	See Results			
	ASTM F963:2017-Migration of Certain Elements	Pass			







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Result Page:

## TOTAL LEAD CONTENT IN SUBSTRATE (Metal), (Consumer Product Safety Improvement Act(CPSIA) of 2008)

Method: With Reference to CPSC-CH-E 1001-08.3: 2012.

Analysis was performed by Atomic Absorption Spectroscopy (AAS).

Test Item(s)	Lead(Pb)
MDL (ppm)	14
Permissible Limit (ppm)	100
Specimen Description	Results (ppm)
Round head rivet(Male)	LT 14
2. Round head rivet(Female)	LT 14
3. Nail(Magnet)	LT 14
4. Magnet	LT 14

Note:

- ppm = parts per million;
- MDL = Method Detection Limit;
- The results are calculated using the minimum specimen weight for composite test;
- LT=Less Than.

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### TOTAL LEAD CONTENT IN SURFACE COATING("Ban of Lead-containing paint and certain consumer products bearing Lead-containing paint", Consumer Product Safety Improvement Act(CPSIA) of 2008)

Method: With Reference to CPSC-CH-E 1003-09.1:2011.

Analysis was performed by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES).

Tes	t Item(s)	Lead(Pb)
ME	DL (ppm)	10
Per	missible Limit (ppm)	90
Spe	ecimen Description	Results (ppm)
	Black coating on wood(Pig)/ Red coating on wood(Figures,triangular,vehicles)/ Brown coating on wood(Dog)	LT 10
	Green coating w/white printing on wood(House,vehicles,tress)/ Blue coating w/white printing on wood(House,vehicles)/ Yellow coating w/blue printing on wood(House,vehicles)	LT 10

Note:

- ppm =parts per million;
- MDL = Method Detection Limit;
- The results are calculated using the minimum specimen weight for composite test;
- LT=Less Than.

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# TOTAL LEAD CONTENT IN SUBSTRATE (Non-metal), (Consumer Product Safety Improvement Act(CPSIA) of 2008)

Method: With Reference to CPSC-CH-E 1002-08.3:2012.

Analysis was performed by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES).

Te	st Item(s)	Lead (Pb)
M	DL (ppm)	10
Pe	ermissible Limit (ppm)	100
Sp	pecimen Description	Results (ppm)
1.	Black plastic (Wheel,cover of magnet)/ Red plastic(Wheel)/ White plastic(Traffic sign)	LT 10
2.	Red plastic with white printing(Traffic sign)/ White coating w/multicolor printing on plastic(Traffic sign)/ Yellow coating w/multicolor printing on plastic(Traffic sign)	LT 10

Note:

- ppm=parts per million;
- LT=Less Than;
- The results are calculated using the minimum specimen weight for composite test;
- MDL = Method Detection Limit.

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# 16 CFR 1307 Prohibition of Children's Toys and Child Care Articles Containing Specified Phthalates

Method: With reference to CPSC-CH-C 1001-09.4:2018.

Analysis was performed by Gas Chromatography Mass Spectrometer (GC-MS).

Test Item(s)			MDL (%)	Permissible Limit(%)			
Specimen NO.	1	2	3	4	-	-	-
Diisobutyl Phthalate(DIBP)	LT0.010	LT 0.010	LT 0.010	LT 0.010	-	0.010	0.100
Dibutyl Phthalate(DBP)	LT 0.010	LT 0.010	LT 0.010	LT 0.010	-	0.010	0.100
Benzyl butyl Phthalate(BBP)	LT 0.010	LT 0.010	LT 0.010	LT 0.010	-	0.010	0.100
Bis (2-ethylhexyl) Phthalate(DEHP)	LT 0.010	LT 0.010	LT 0.010	LT 0.010	-	0.010	0.100
Dihexyl Phthalate(DHEXP)	LT 0.010	LT 0.010	LT 0.010	LT 0.010	-	0.010	0.100
Dissononyl Phthalate(DINP)	LT 0.015	LT 0.015	LT 0.015	LT 0.015	-	0.015	0.100
Dipentyl Phthalate(DPENP)	LT 0.010	LT 0.010	LT 0.010	LT 0.010	-	0.010	0.100
Dicyclohexyl Phthalate(DCHP)	LT 0.010	LT 0.010	LT 0.010	LT 0.010	-	0.010	0.100

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#### Specimen Description:

- 1. Black coating on wood(Pig)/ Red coating on wood(Figures, triangular, vehicles)/ Brown coating on wood(Dog)
- 2. Green coating w/white printing on wood(House,vehicles,tress)/ Blue coating w/white printing on wood(House,vehicles)/ Yellow coating w/blue printing on wood(House,vehicles)
- 3. Black plastic (Wheel, cover of magnet)/ Red plastic (Wheel)/ White plastic (Traffic sign)
- 4. Red plastic with white printing(Traffic sign)/ White coating w/multicolor printing on plastic(Traffic sign)/ Yellow coating w/multicolor printing on plastic(Traffic sign)

Note:

- MDL = Method Detection Limit;
- 1% = 10000 mg/kg = 10000 ppm;
- Results shown as less than MDL are ignore in the sum calculation;
- The result(s) is (are) calculated using the total specimen weight for composite test;
- LT=Less Than.

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### REACH Regulation (EC) (1907/2006/EC) Annex XVII and its Amendments—Phthalates

Content

Method: With reference to CPSC-CH-C1001-09.4.

Analysis was performed by Gas Chromatography Mass Spectrometer(GC-MS).

Test Item(s)		F	Results(%)			MDL (%)	Permissible Limit(%)
Specimen NO.	1	2	3	4	-	-	-
Dibutyl	LT 0.010	LT 0.010	LT 0.010	LT 0.010	-	0.010	0.100
Phthalate(DBP)							
(CAS:84-74-2)							
Benzylbutyl	LT 0.010	LT 0.010	LT 0.010	LT 0.010	-	0.010	0.100
Phthalate(BBP)							
(CAS:85-68-7)							
Bis-(2-ethylhexyl)	LT 0.010	LT 0.010	LT 0.010	LT 0.010	-	0.010	0.100
Phthalate(DEHP)							
(CAS: 117-81-7)							
Diisononyl	LT 0.015	LT 0.015	LT 0.015	LT 0.015	-	0.015	0.100
Phthalate(DINP)							
(CAS: 68515-48-0)							
Di-n-octyl	LT 0.010	LT 0.010	LT 0.010	LT 0.010	-	0.010	0.100
Phthalate(DNOP)							
(CAS: 117-84-0)							
Diisodecyl	LT 0.015	LT 0.015	LT 0.015	LT 0.015	-	0.015	0.100
Phthalate(DIDP)							
(CAS: 26761-40-0)							
Total	LT 0.015	LT 0.015	LT 0.015	LT 0.015	-	-	0.100
(DBP+BBP+DEHP)							
Total	LT 0.015	LT 0.015	LT 0.015	LT 0.015		-	0.100
(DINP+DNOP+DIDP)							

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#### Specimen Description:

- 1. Black coating on wood(Pig)/ Red coating on wood(Figures, triangular, vehicles)/ Brown coating on wood(Dog)
- 2. Green coating w/white printing on wood(House, vehicles, tress)/ Blue coating w/white printing on wood(House, vehicles)/ Yellow coating w/blue printing on wood(House, vehicles)
- 3. Black plastic (Wheel, cover of magnet)/ Red plastic(Wheel)/ White plastic(Traffic sign)
- 4. Red plastic with white printing(Traffic sign)/ White coating w/multicolor printing on plastic(Traffic sign)/ Yellow coating w/multicolor printing on plastic(Traffic sign)

Note:

- MDL = Method Detection Limit
- 1% = 10000 mg/kg = 10000 ppm
- Results shown as less than MDL are ignore in the sum calculation.
- The results are calculated using the total specimen weight for composite test.
- LT=Less Than

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#### EN 71-3:2013+A3:2018- Safety of Toys-Part 3: Migration of Certain Elements

Method: With reference to EN 71-3:2013+A3:2018.

Analysis was performed by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES).

Element		b .	MDL (mg/kg)	Permissible Limit (mg/kg)			
Specimen NO.	(1)	(2)	(3)	(4)	(5)	-	_
Aluminum(Al)	LT 50	84	74	202	LT 50	50	70000
Antimony(Sb)	LT 10	LT 10	LT 10	LT 10	LT 10	10	560
Arsenic(As)	LT 10	LT 10	LT 10	LT 10	LT 10	10	47
Barium(Ba)	29	LT 25	LT 25	LT 25	LT 25	25	18750
Boron(B)	LT 50	LT 50	LT 50	LT 50	LT 50	50	15000
Cadmium(Cd)	LT 5	LT 5	LT 5	LT 5	LT 5	5	17
Chromium (Cr)	LT 5	LT 5	LT 5	LT 5	LT 5	5	460
Cobalt(Co)	LT 5	LT 5	LT 5	LT 5	LT 5	5	130
Copper(Cu)	LT 10	LT 10	LT 10	LT 10	LT 10	10	7700
Lead(Pb)	LT 10	LT 10	LT 10	LT 10	LT 10	10	23
Manganese(Mn)	LT 50	LT 50	LT 50	LT 50	LT 50	50	15000
Mercury(Hg)	LT 10	LT 10	LT 10	LT 10	LT 10	10	94
Nickel(Ni)	LT 50	LT 50	LT 50	LT 50	LT 50	50	930
Selenium(Se)	LT 50	LT 50	LT 50	LT 50	LT 50	50	460
Strontium(Sr)	LT 10	176	LT 10	LT 10	27	10	56000
Tin(Sn)	LT 5	LT 5	LT 5	LT 5	LT 5	5	180000
Zinc(Zn)	LT 50	LT 50	LT 50	52	60	50	46000

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Element			MDL (mg/kg)	Permissible Limit (mg/kg)			
Specimen NO.	(6)	(7)	(8)	(9)	(10)	-	-
Aluminum(Al)	338	LT 50	LT 50	LT 50	LT 50	50	70000
Antimony(Sb)	LT 10	LT 10	LT 10	LT 10	LT 10	10	560
Arsenic(As)	LT 10	LT 10	LT 10	LT 10	LT 10	10	47
Barium(Ba)	LT 25	LT 25	LT 25	LT 25	LT 25	25	18750
Boron(B)	LT 50	LT 50	LT 50	LT 50	LT 50	50	15000
Cadmium(Cd)	LT 5	LT 5	LT 5	LT 5	LT 5	5	17
Chromium (Cr)	LT 5	LT 5	LT 5	LT 5	LT 5	5	460
Cobalt(Co)	LT 5	LT 5	LT 5	LT 5	LT 5	5	130
Copper(Cu)	LT 10	LT 10	LT 10	LT 10	LT 10	10	7700
Lead(Pb)	LT 10	LT 10	LT 10	LT 10	LT 10	10	23
Manganese(Mn)	LT 50	LT 50	LT 50	LT 50	LT 50	50	15000
Mercury(Hg)	LT 10	LT 10	LT 10	LT 10	LT 10	10	94
Nickel(Ni)	LT 50	LT 50	LT 50	LT 50	LT 50	50	930
Selenium(Se)	LT 50	LT 50	LT 50	LT 50	LT 50	50	460
Strontium(Sr)	LT 10	LT 10	LT 10	LT 10	LT 10	10	56000
Tin(Sn)	LT 5	LT 5	LT 5	LT 5	LT 5	5	180000
Zinc(Zn)	LT 50	LT 50	LT 50	LT 50	LT 50	50	46000

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Element			MDL (mg/kg)	Permissible Limit (mg/kg)			
Specimen NO.	(11)	(12)	-	-	-	-	-
Aluminum(Al)	LT 50	LT 50	-	-	-	50	70000
Antimony(Sb)	LT 10	LT 10	-	-	-	10	560
Arsenic(As)	LT 10	LT 10	-	-	-	10	47
Barium(Ba)	LT 25	LT 25	-	-	-	25	18750
Boron(B)	LT 50	LT 50	-	-	-	50	15000
Cadmium(Cd)	LT 5	LT 5	-	-	-	5	17
Chromium (Cr)	LT 5	LT 5	-	-	-	5	460
Cobalt(Co)	LT 5	LT 5	-	-	-	5	130
Copper(Cu)	LT 10	LT 10	-	-	-	10	7700
Lead(Pb)	LT 10	LT 10	-	-	-	10	23
Manganese(Mn)	LT 50	LT 50	-	-	-	50	15000
Mercury(Hg)	LT 10	LT 10	-	-	-	10	94
Nickel(Ni)	LT 50	LT 50	-	-	-	50	930
Selenium(Se)	LT 50	LT 50	-	-	-	50	460
Strontium(Sr)	LT 10	LT 10	-	-	-	10	56000
Tin(Sn)	LT 5	LT 5	-	-	-	5	180000
Zinc(Zn)	LT 50	LT 50	-	-	-	50	46000

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#### Specimen Description:

- 1. Black coating on wood(Pig)
- 2. Red coating on wood(Figures, triangular, vehicles)
- 3. Brown coating on wood(Dog)
- 4. Green coating w/white printing on wood(House, vehicles, tress)
- 5. Blue coating w/white printing on wood(House, vehicles)
- 6. Yellow coating w/blue printing on wood(House, vehicles)
- 7. Black plastic (Wheel, cover of magnet)
- 8. Red plastic(Wheel)
- 9. White plastic(Traffic sign)
- 10. Red plastic with white printing(Traffic sign)
- 11. White coating w/multicolor printing on plastic(Traffic sign)
- 12. Yellow coating w/multicolor printing on plastic(Traffic sign)

Note:

- ppm=parts per million;
- LT = Less Than;
- Confirmation test of soluble chromium(VI) is required as specified in EN71-3:2013+A3:2018;
- Confirmation test of soluble organic tin is not required in case of soluble tin, after conversion, does not exceed the soluble organic tin requirement as specified in EN71-3:2013+A3:2018.

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### **ASTM F963:2017-Migration of Certain Elements**

Method: With reference to ASTM F963:2017 8.3 Test Methods for Determination of Heavy Elements. Analysis was performed by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES).

Test Item(s)	Pb	Sb	As	Ва	Cd	Cr	Hg	Se		
MDL (ppm)	10	10	10	25	5	5	10	50		
Permissible Limit (ppm)	90	60	25	1000	75	60	60	500		
Specimen No.	Adjusted Migration Result(s) (ppm)									
1	LT 10	LT 10	LT 10	LT 25	LT 5	LT 5	LT 10	LT 50		
2	LT 10	LT 10	LT 10	LT 25	LT 5	LT 5	LT 10	LT 50		
3	LT 10	LT 10	LT 10	LT 25	LT 5	LT 5	LT 10	LT 50		
4	LT 10	LT 10	LT 10	LT 25	LT 5	LT 5	LT 10	LT 50		
5	LT 10	LT 10	LT 10	LT 25	LT 5	LT 5	LT 10	LT 50		
6	LT 10	LT 10	LT 10	LT 25	LT 5	LT 5	LT 10	LT 50		
7	LT 10	LT 10	LT 10	LT 25	LT 5	LT 5	LT 10	LT 50		
8	LT 10	LT 10	LT 10	LT 25	LT 5	LT 5	LT 10	LT 50		
9	LT 10	LT 10	LT 10	LT 25	LT 5	LT 5	LT 10	LT 50		
10	LT 10	LT 10	LT 10	LT 25	LT 5	LT 5	LT 10	LT 50		
11	LT 10	LT 10	LT 10	LT 25	LT 5	LT 5	LT 10	LT 50		
12	LT 10	LT 10	LT 10	LT 25	LT 5	LT 5	LT 10	LT 50		

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#### Specimen Description:

- 1. Black coating on wood(Pig)
- 2. Red coating on wood(Figures, triangular, vehicles)
- 3. Brown coating on wood(Dog)
- 4. Green coating w/white printing on wood(House, vehicles, tress)
- 5. Blue coating w/white printing on wood(House, vehicles)
- 6. Yellow coating w/blue printing on wood(House, vehicles)
- 7. Black plastic (Wheel, cover of magnet)
- 8. Red plastic(Wheel)
- 9. White plastic(Traffic sign)
- 10. Red plastic with white printing(Traffic sign)
- 11. White coating w/multicolor printing on plastic(Traffic sign)
- 12. Yellow coating w/multicolor printing on plastic(Traffic sign)

Note:

- ppm = parts per million;
- MDL = Method Detection Limit;
- LT=Less Than.

\*\*\* End of Report \*\*\*

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