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TEST REPORT

APPLICANT	:	Yunhe Fenghua Toys Co., Ltd
ADDRESS	:	No.76, Chengnan West Road, Bailongshan street, Yunhe County, Lishui City, Zhejiang Province
SAMPLE DESCRIPTION	:	magic engineering vehicles
ITEM NO.	:	FH-2005
COUNTRY OF ORIGIN	:	China
AGE REQUESTED ON APPLICATION FORM	:	3+
LABELED AGE GRADE	:	36M+
AGE GRADE APPLIED IN TESTING	:	Over 3 Years
SAMPLE RECEIVED DATE	ŀ	24-Aug-2020
TURN AROUND TIME	4:	24-Aug-2020 to 31-Aug-2020

The following test item(s) was/were performed on submitted sample(s) and/or component(s) confirmed by applicant

TEST REQUESTED	TEST METHOD/REGULATION	RESULT
Mechanical and Physical Properties	ASTM F963-17	Pass
Flammability of Toys	ASTM F963-17	Pass
Heavy Metals	ASTM F963-17	Pass
Total Lead Content in Paint / Surface Coating	US CPSIA, Section 101	Pass
Total Lead Content in Substrate	US CPSIA, Section 101	Pass
Phthalates Content	US CPSIA, Section 108	Pass

Samples are obtained by express delivery, Results obtained refer only to samples, products or material received in Laboratory, as described in point related to sample description, and tested in conditions shown in present report. Eurofins Product Testing Service (Shanghai) Co., Ltd ensures that this job has been performed according to our Quality System and complying contract and legal conditions. If you happen to have any comments, please do it by sending email to <u>info.sh@eurofins.com</u> and referring to this report number. Reproduction of this document is only valid if it is done completely and under the written permission of Eurofins Product Testing Service (Shanghai) Co., Ltd. If you happen to have any complaints, please do it by sending email to <u>chinacomplaint@eurofins.com</u> and referring to this report number.



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************ FOR FURTHER DETAILS, PLEASE REFER TO THE FOLLOWING PAGE(S) ************

Signed for and on behalf of Eurofins Product Testing Service (Shanghai) Co., Ltd

Joyce Liu Lab Manager



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SAMPLE PHOTO(S)



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TO BE CONTINUED

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COMPONENT LIST

Component No.	Component
1	White paper card with multi-color coating (specification)
2	Brown coating on wood
3	Black coating on wood
4	Yellow coating on wood
5	Light yellow coating on wood
6	Transparent coating on wood
7	Orange coating on wood
8	Blue coating on wood
9	Red coating on wood
10	White coating on wood
11	Black plastic
12	Black fabric rope
13	Natural color wood excluding coating
14	Silver metal magnet

TO BE CONTINUED

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Mechanical and Physical Properties

Test Request: As specified in Consumer Safety Specification ASTM F963-17

Section	Description	Result
4.1	Material Quality	Р
4.3.7	Stuffing Materials	N/A
4.5	Sound-Producing Toys	N/A
4.6	Small Objects	N/A
4.6.1	Toys that are intended for children under 36 months of age	N/A
4.6.2	Mouth-Actuated Toys	N/A
4.6.3	Toys that are intended for children over 36 months but less than 72 months	N/A
4.7	Accessible Edges	Р
4.8	Projections	N/A
4.8.1	Bath Toy Projections	N/A
4.9	Accessible Points	P
4.10	Wires or Rods	N/A
4.11	Nails and Fasteners	Р
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	Р
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 and section 4.25.11 Toys 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
4.28	Stroller and Carriage Toys	N/A
4.30	Toy Gun Marking	N/A
4.31	Balloons	N/A
4.32	Certain Toys with Nearly Spherical Ends	N/A
4.33	Marbles	N/A
4.34	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	Р
4.39	Jaw Entrapment in Handles and Steering Wheels	N/A
4.40	Expanding material	N/A
4.41	Toy Chests	N/A
5	Labeling Requirements	
5.2	Age Grading Labeling	Р

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TEST RESULT

Section	Description	Result
5.3	Safety Labeling Requirements	N/A
5.4	Aquatic Toys	N/A
5.5	Crib and Playpen Toys	N/A
5.6	Mobiles	N/A
5.7	Stroller and Carriage Toys	N/A
5.8	Toys Intended to be Assembled by an Adult	N/A
5.9	Simulated Protective Devices	N/A
5.10	Toys with Functional Sharp Edges and Sharp Points	N/A
5.11	Small Objects, Small Balls, Marbles and Balloons (16 CFR 1500.19)	N/A
5.12	Toy Caps (16 CFR 1500.86 for Required Labeling)	N/A
5.13	Art Materials (16 CFR 1500.14(b)(8))	N/A
5.14	Electric Toys	N/A
5.15	Battery-Operated Toys	N/A
5.15.1	Battery-Powered Ride-On Toys	N/A
5.15.2	Button or Coin Cell Batteries	N/A
5.16	Promotional Materials	Р
5.17	Magnets	N/A
6	Instructional Literature	
6.1	Definition and Description	N/A
6.2	Crib and Playpen Toys	N/A
6.3	Mobiles	N/A
6.4	Toys Intended to be Assembled by an Adult	N/A
6.5	Battery-Operated Toys	N/A
6.6	Battery-Powered Ride-On Toys	N/A
6.7	Toys in Contact with Food	N/A
6.8	Toy Chests	N/A
7	Producer's Markings	
7.1	Producer's or Distributor's Name and Address	P
7.2	Battery-Powered Ride-on Toys	N/A
7.3	Toy Chests	N/A

Remark:

P – Pass N/A – Not Applicable

Flammability of Toys

Test Request: As specified in ASTM F963-17, Section 4.2, testing procedure for materials other than textiles (excluding paper) used in toys is contained in Annex A5.

Sample	Limit	Result	
magic engineering vehicles	0.1 inch/second	Р	

Remark:

P – Pass



Heavy Metals

1) ASTM F963-17- Heavy Elements – Total Lead in Paint and Similar Surface-Coating Material(Clause 4.3.5.1(1)) Test Method: ASTM International Standard ASTM F963-17, Section 8.3.1 and Annex A7.

Tested Item(s)	Unit	Limit	МП			Result			
rested item(s)	Onit	LIIIII	WIDL	1	2	3	t 4 ND t 9 ND	5	
Total Lead	mg/kg	90	10	ND	ND	ND	ND	ND	
Tested Item(s)	Unit	Limit	МП	Result					
lested item(s)	Onit	LIIIII	WIDL	6	7	8	9	10	
Total Lead	mg/kg	90	10	ND	ND	ND	ND	ND	

2) ASTM F963-17- Heavy Elements – Total Lead in Substrate Material (Clause 4.3.5.2(2)(a)) Test Method: ASTM International Standard ASTM F963-17, Section 8.3.1 and Annex A7.

Tostod Itom(s)	Unit	Limit	MDI	Result			
rested item(s)	Onit		WIDL	11	13	14	
Total Lead	mg/kg	100	10	ND	ND	ND	

3) ASTM F963-17- Heavy Elements – Total Elements Content, Initial Screening for Soluble Migrated Elements Content in Surface Coatings and Substrates Other Than Modeling Clay(Clause 4.3.5.1(2) and 4.3.5.2(2)(b)) Test Method: ASTM International Standard ASTM F963-17, Section 8.3.1 and Annex A7.

Tostad Itom(s)	Unit	Limit			Result			
rested item(s)	Unit		WIDL	1	2	3	4	5
Total Antimony	mg/kg	60	5	ND	ND	ND	ND	ND
Total Arsenic	mg/kg	25	5	ND	ND	ND	ND	ND
Total Barium	mg/kg	1000	10	ND	285	322	384	363
Total Cadmium	mg/kg	75	5	ND	ND	ND	ND	ND
Total Chromium	mg/kg	60	5	ND	ND	ND	ND	ND
Total Lead	mg/kg	90	10	ND	ND	ND	ND	ND
Total Mercury	mg/kg	60	5	ND	ND	ND	ND	ND
Total Selenium	mg/kg	500	10	ND	ND	ND	ND	ND

Tested Item(s)	Unit	Limit	MDI	Result				
rested item(s)	Unit		WIDL	6	7	8	9	10
Total Antimony	mg/kg	60	5	ND	ND	ND	ND	ND
Total Arsenic	mg/kg	25	5	ND	ND	ND	ND	ND
Total Barium	mg/kg	1000	10	ND	217	954	215	1.96x10 ^{3*}
Total Cadmium	mg/kg	75	5	ND	ND	ND	ND	ND
Total Chromium	mg/kg	60	5	ND	ND	ND	ND	ND
Total Lead	mg/kg	90	10	ND	ND	ND	ND	ND
Total Mercury	mg/kg	60	5	ND	ND	ND	ND	ND
Total Selenium	mg/kg	500	10	ND	ND	ND	ND	ND



Tested Item(s)	Unit	Limit	MDI	Result			
rested item(s)	Unit	Linnit	IVIDE	11	12	13	
Total Antimony	mg/kg	60	5	ND	ND	11	
Total Arsenic	mg/kg	25	5	ND	ND	ND	
Total Barium	mg/kg	1000	10	ND	ND	ND	
Total Cadmium	mg/kg	75	5	ND	ND	ND	
Total Chromium	mg/kg	60	5	ND	ND	ND	
Total Lead	mg/kg	90	10	ND	ND	ND	
Total Mercury	mg/kg	60	5	ND	ND	ND	
Total Selenium	mg/kg	500	10	ND	ND	ND	

4) ASTM F963-17- Heavy Elements – Soluble Migrated Elements Content in Surface Coatings and Substrates Other Than Modeling Clay (Clause 4.3.5.1(2) and 4.3.5.2(2)(b))

Test Method: ASTM International Standard ASTM F963-17, Section 8.3.2 to 8.3.5 (excluding 8.3.5.5(3))

Tested Item(s)	Unit	Limit	МП	Result		
rested item(s)	Onit	Lunu	WIDL		10 🔎	
Soluble Antimony	mg/kg	60	5	y w	ND	
Soluble Arsenic	mg/kg	25	5		ND	
Soluble Barium	mg/kg	1000	10		ND	
Soluble Cadmium	mg/kg	75	5		ND	
Soluble Chromium	mg/kg	60	5		ND	
Soluble Lead	mg/kg	90	10		ND	
Soluble Mercury	mg/kg	60	5		ND	
Soluble Selenium	mg/kg	500	10		ND	

Remark:

mg/kg = milligram per kilogram

MDL = method detection limit

ND = Not detected, less than MDL

The analytical results were adjusted by subtracting analytical correction factor.

* On the initial analysis for soluble heavy metals content, any tested component of greater than the set limit, the result is inconclusive for the requirement and therefore were retested with soluble heavy metals analysis of ASTM F963-17, Sections 8.3.2 to 8.3.5 as specified in Section 8.3.1.3. The result herein is for reference only (show data), please refer to soluble heavy metals content analysis for the corresponding conclusive results.



Total Lead Content in Paint / Surface Coating

Test Request:Total lead in paint/ similar surface coatings as specified in US Consumer Product Safety
Improvement Act 2008 (CPSIA), Section 101Test Method:CPSC-CH-E1003-09.1

CPSC-CH-E1003-09.1 The sample was acid digested, and total lead content was determined by ICP-OES.

Tested Item(s)	Unit	Limit	MDL	Result				
				1	2+3+4	5+6+7	8+9+10	
Total Lead(Pb)	mg/kg	90	10	ND	ND	ND	ND	

Remark:

mg/kg = milligram per kilogram MDL = method detection limit ND = Not detected, less than MDL

According to client's request, tests are combination tests. The experimental results are the total result of mixed samples.

Total Lead Content in Substrate

Test Request: Total lead in substrate as specified in US Consumer Product Safety Improvement Act 2008 (CPSIA), Section 101

Test Method: CPSC-CH-E1001-08.3, CPSC-CH-E1002-08.3 The sample was acid digested, and total lead content was determined by ICP-OES.

Tested Item(s)	llpit	Limit	MDL	Result			
	Unit			11	13	14	
Total Lead(Pb)	mg/kg	100	10	ND	ND	ND	

Remark:

mg/kg = milligram per kilogram MDL = method detection limit ND = Not detected, less than MDL



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TEST RESULT

Phthalates Content

Test Request: Phthalates Content as specified in US Consumer Product Safety Improvement Act 2008 (CPSIA), Section 108

Test Method: CPSC-CH-C1001-09.4

Tested Item(s)	CAS No.	Unit	Limit	MDL	Result			
					1	2+3+4	5+6+7	8+9+10
For toys and childcare articles								
Dibutylphthalate (DBP)	84-74-2	%	0.1	0.005	ND	ND	ND	ND
Di-2-ethylhexylphthalate (DEHP)	117-81-7	%	0.1	0.005	ND	ND	ND	ND
Benzylbutylphthalate (BBP)	85-68-7	%	0.1	0.005	ND	ND	ND	ND
Additional requirements for toys and childcare articles, which can be placed in the mouth by children								
Diisononyl phthalate (DINP)	68515-48-0	%	0.1	0.005	ND	ND	ND	ND
Di-n-octylphthalate (DNOP)	117-84-0	%	0.1	0.005	ND	ND	ND	ND
Di-iso-decylphthalate (DIDP)	26761-40-0	%	0.1	0.005	ND	ND	ND	ND

4	4 5								
Tested Item(s)	CAS No.	Unit	Limit	MDL	Result				
		Ť			11				
For toys and childcare articles									
Dibutylphthalate (DBP)	84-74-2	%	0.1	0.005	ND				
Di-2-ethylhexylphthalate (DEHP)	117-81-7	%	0.1	0.005	ND				
Benzylbutylphthalate (BBP)	85-68-7	%	0.1	0.005	ND				
Additional requirements for toys and childcare articles, which can be placed in the mouth by children									
Diisononyl phthalate (DINP)	68515-48-0	%	0.1	0.005	ND				
Di-n-octylphthalate (DNOP)	117-84-0	%	0.1	0.005	ND				
Di-iso-decylphthalate (DIDP)	26761-40-0	%	0.1	0.005	ND				

Remark:

MDL = method detection limit

ND = Not detected, less than MDL

According to client's request, tests are combination tests. The experimental results are the total result of mixed samples.

END OF THE REPORT