

Test Report

Number: GZHH00273687S1

Applicant: RASTAR GROUP
XINGHUI INDUSTRIAL PARK,
XIADAO ROAD, SHANGHUA, CHENGHAI,
SHANTOU, GUANGDONG, CHINA

Date: Jul 19, 2018

*This is to supersede Report No.
GZHH00273687 dated Mar 22,
2018*

Sample Description:

Four (4) sets of submitted sample said to be :
Item Name : **Model R/C Car**
Labelled Age Group : 6+
Applicant Specified Age : Over 6 years
Grading for Testing :
Packaging Provided by Applicant : Yes
Country of Origin : China

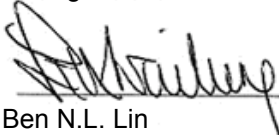


Tests conducted:

As requested by the applicant, refer to attached page(s) for details.

To be continued

Authorized by:
For Intertek Testing Services Shenzhen Ltd.
Guangzhou Branch, Hardlines


Ben N.L. Lin
General Manager



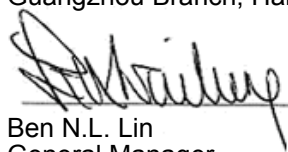
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Conclusion:

<u>Tested sample</u>	<u>Standard</u>	<u>Result</u>
Submitted sample sets	EN71-1:2014 for mechanical and physical properties	Pass
	EN71-2 : 2011+A1:2014 Flammability test	Pass
Tested component(s) of submitted sample sets	EN71-3:2013+A1:2014 on migration of certain elements	Pass
	EN71-3:2013+A1:2014 on migration of certain elements (excluding lead migration) & lead migration of EU 2017/738 amending 2009/48/EC(effective from Oct 28,2018)	Pass
	EN71-3:2013+A2:2017 on migration of certain elements	Pass
	EN71-3:2013+A2:2017 on migration of certain elements (excluding lead migration) & lead migration of EU 2017/738 amending 2009/48/EC(effective from Oct 28,2018)	Pass

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General Manager



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Tests Conducted

1 Physical and Mechanical Tests

As per European Standard on Safety of toys EN71-1:2014

The submitted samples were undergone the following abuse tests:

Test	Clause	Parameter
Drop test	8.5	850 mm x 5 times
Impact test	8.7	1 kg
Flexibility of metallic wires	8.13	70 N

Clause	Testing Items	Assessment
4	General requirements	
4.1	Material	P
4.2	Assembly	NA
4.3	Flexible plastic sheeting	NA
4.4	Toy bags	NA
4.5	Glass	NA
4.6	Expanding materials	NA
4.7	Edges	P
4.8	Points and metallic wires	P
4.9	Protruding parts	NA
4.10	Parts moving against each other	P
4.11	Mouth actuated toys and other toys intended to be put in the mouth	NA
4.12	Balloons	NA
4.13	Cords of toy kites and other flying toys	NA
4.14	Enclosures	NA
4.15	Toys intended to bear the mass of a child	NA
4.16	Heavy immobile toys	NA
4.17	Projectiles	NA
4.18	Aquatic toys and inflatable toys	NA
4.19	Percussion caps specifically designed for use in toys and toys using percussion caps	NA
4.20	Acoustics	NA
4.21	Toys containing non-electrical heat source	NA
4.22	Small balls	NA
4.23	Magnets	NA
4.24	Yo-yo balls	NA
4.25	Toys attached to food	NA
5	Toys intended for children under 36 months	
5.1	General requirements	NA
5.2	Soft-filled toys and soft-filled parts of a toy	NA
5.3	Plastic sheeting	NA
5.4	Cords, chains and electrical cables in toys	NA
5.5	Liquid filled toys	NA



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Clause	Testing Items	Assessment
5.6	Speed limitation of electrically-driven ride-on toys	NA
5.7	Glass and porcelain	NA
5.8	Shape and size of certain toys	NA
5.9	Toys comprising monofilament fibres	NA
5.10	Small balls	NA
5.11	Play figures	NA
5.12	Hemispheric-shaped toys	NA
5.13	Suction cups	NA
5.14	Straps intended to be worn fully or partially around the neck	NA
6	Packaging	NA
7	Warnings, markings and instructions for use	
7.1	General	P
7.2	Toys not intended for children under 36 months	NA
7.3	Latex balloons	NA
7.4	Aquatic toys	NA
7.5	Functional toys	NA
7.6	Hazardous sharp functional edges and points	NA
7.7	Projectiles	NA
7.8	Imitation protective masks and helmets	NA
7.9	Toy kites	NA
7.10	Roller skates, inlineskates and skateboards	NA
7.11	Toys intended to be attached to strung across a cradle, cot, or perambulator	NA
7.12	Liquid-filled teethingers	NA
7.13	Percussion caps specifically designed for use in toys	NA
7.14	Acoustics	NA
7.15	Toy bicycles	NA
7.16	Toys intended to bear the mass of a child	NA
7.17	Toys comprising monofilament fibres	NA
7.18	Toy scooters	NA
7.19	Rocking horses and similar toys	NA
7.20	Magnetic/electrical experimental sets	NA
7.21	Toys with electrical cables exceeding 300 mm in length	NA
7.22	Toys with cords or chains intended for children of 18 months and over but under 36 months	NA

Remark: P = Pass NA = Not Applicable



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Remark: Additional information according to the Toy Safety Directives 2009/48/EC requirement. These information also appears as a note within the EN71 but are not standard requirements:

1. Marking

The manufacturer's and importer's name, registered trade name or registered trade mark, the address and the CE-marking shall be indicated on the toy or, where that is not possible, on its packaging or in a document accompany the toy. In addition, manufacturers shall ensure that their toys bear a type, batch, serial or model number or other element allowing their identification, or where the size or nature of the toy does not allow it, that the required information is provided on the packaging or in a document accompanying the toy.

- Manufacturer's name was on the packaging and toy.
- Manufacturer's address was on the packaging.
- Importer's name was missed.
- Importer's address was missed.
- Product identification code was on the packaging and toy.
- CE marking was on the packaging and toy.

Date sample received : Mar 16, 2018
Testing period : Mar 16, 2018 to Mar 20, 2018

2 Flammability Test

As per European Standard on Safety of Toys EN71-2:2011+A1:2014

Clause	Testing Items	Assessment
4.1	General	P
4.2	Toys to be worn on the head	NA
4.3	Toy disguise costumes and toys intended to be worn by a child in play	NA
4.4	Toys intended to be entered by a child	NA
4.5	Soft filled toys	NA

Remark: P = Pass NA = Not Applicable

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3 19 Toxic Element Migration Test

(A) Test Result

As per EN71-3:2013+A1:2014 and followed by Inductively Coupled Plasma Atomic Emission Spectrometry.

Category (III): Scraped-off toy material

Element	Result (mg/kg)		Reporting Limit (mg/kg)	Limit (mg/kg)
	Tested Component			
	(3)	(5)		
Aluminium (Al)	8552	592	300	70000
Antimony (Sb)	ND	ND	10	560
Arsenic (As)	ND	ND	10	47
Barium (Ba)	ND	ND	10	18750
Boron (B)	ND	ND	50	15000
Cadmium (Cd)	ND	ND	5	17
Chromium (III) (Cr III) **	ND	ND	10	460
Chromium (VI) (Cr VI) **	ND	ND	0.1	0.2
Cobalt (Co)	ND	ND	10	130
Copper (Cu)	ND	ND	10	7700
Lead (Pb)	ND	ND	10	160/23ø
Manganese (Mn)	ND	ND	10	15000
Mercury (Hg)	ND	ND	10	94
Nickel (Ni)	ND	ND	10	930
Selenium (Se)	ND	ND	10	460
Strontium (Sr)	ND	ND	100	56000
Tin (Sn)	ND	ND	2.5	180000
Organic tin **	ND	ND	2.0	12
Zinc (Zn)	ND	ND	100	46000



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Element	Result (mg/kg)	Reporting Limit (mg/kg)	Limit (mg/kg)
	Tested Component		
	(1), (2), (6), (9), (10), (12)to(19)		
Aluminium (Al)	ND	300	70000
Antimony (Sb)	ND	10	560
Arsenic (As)	ND	10	47
Barium (Ba)	ND	10	18750
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Zinc (Zn)	ND	100	46000

Remark : mg/kg = milligram per kilogram

++ = Unless the test results were marked with "#" or "Δ", Chromium (III) & Chromium (VI) and Organic tin contents were not directly determined and were derived from migration results of total chromium and tin respectively.

- Organic tin test result was expressed as tributyl tin.

ND = Not detected (less than reporting limit)

ø = The new lead migration limit [(2.0mg/kg for Category (I), 0.5mg/kg for category (II) and 23 mg/kg for Category (III)] were quoted from directive (EU) 2017/738 amending 2009/48/EC effective from 28 October 2018.



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Tested Component(s):

- (1) Black coating on plastic (body of both cars, mirror of big car).
- (2) Red coating on plastic (body of big car).
- (3) Coatings (silver color, white) on plastic (wheel, exhaust, front, rear, body, cab of big car, wheel, logo, rear of small car, pattern of both remote controls) (sample weight: 31.2mg).
- (4) @ Coatings (silver-grey, silver color) on plastic (rear body of big car).
- (5) Coatings (transparent red, silver color) on plastic (taillight of both cars) (sample weight: 18.2mg).
- (6) Coatings (red, silver color) on soft plastic (mirror of big car) (sample weight: 18.1mg).
- (7) @ Coatings (blue, white) on plastic (brake of wheel of big car).
- (8) @ Coatings (silver color, red, black) on plastic (logo of big remote control).
- (9) Black plastic excluding coatings (body, cab, chassis, upper of mirror, inner of wheel of big car, chassis, wheel, rear body of small car, body, button of both remote controls).
- (10) Transparent plastic (window of big car, headlight, taillight of both cars).
- (11) @ Silver color plastic label (mirror of big car).
- (12) Black soft plastic (mirror of small car, base of mirror of big car).
- (13) White plastic excluding coatings (wheel of big car).
- (14) Grey plastic (direction adjustment of base of big car).
- (15) Light white plastic (direction adjustment of base of small car).
- (16) Black soft plastic (tire of wheel of both cars).
- (17) Black plastic (switch of base of both cars).
- (18) Red plastic (body of small car).
- (19) Light red plastic (lower body of big remote control).

@: Since the sample weight of the component was less than 10 mg, soluble heavy metal analysis was not applicable.

(B) Categories of various toy materials

Category I: Dry, brittle, powder like or pliable

Solid toy material from which powder-like material is released during playing and semi-solid materials that may also leave residues on the hands during play. The material can be ingested. Contamination of the hands with the material may contribute to the oral exposure of the material. (e.g. the cores of colouring pencils, chalk, crayons, modelling clays and plaster).

Category II: Liquid or sticky

Fluid or viscous toy material, which can be ingested or to which dermal exposure may occur during playing. (e.g. liquid paints, finger paints, liquid ink in pens, glue sticks, slimes, bubble solution).

Category III: Scraped-off

Solid toy material with or without a coating, which can be ingested as a result of biting, tooth scraping, sucking or licking. (e.g. coatings, lacquers, plastics, paper, textiles, glass, ceramic, metallic, wooden, bone, leather and other materials).

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- (7) @ Coatings (blue, white) on plastic (brake of wheel of big car).
- (8) @ Coatings (silver color, red, black) on plastic (logo of big remote control).
- (9) Black plastic excluding coatings (body, cab, chassis, upper of mirror, inner of wheel of big car, chassis, wheel, rear body of small car, body, button of both remote controls).



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Tested Component(s):

- (10) Transparent plastic (window of big car, headlight, taillight of both cars).
- (11) @ Silver color plastic label (mirror of big car).
- (12) Black soft plastic (mirror of small car, base of mirror of big car).
- (13) White plastic excluding coatings (wheel of big car).
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Tests Conducted

Appendix

Reference No./Description	:	75110	McLaren P1
		75300	AUDI R8 LMS Performance 2015 Version
		75360	AUDI R8 LMS Performance 2015 Version
		75400	Pagani Huayra BC
		75500	Maserati Levante
		75600	Ferrari 488 GTB
		75700	Bugatti Veyron Chiron
		75800	Ferrari LaFerrari Aperta
		75900	Porsche 911 GT3 CUP
		78000	Volkswagen Beetles
		78100	Ford GT
		78400	Land Rover Defender
		78700	Ferrari F40
		78410	Land Rover Defender
		74720	RS Transformable car
		74700	RS Transformable car
		74600	Pagani Transformable car
		74620	Pagani Transformable car
		74800	Mercedes-Benz GT3 Transformable car
		74820	Mercedes-Benz GT3 Transformable car
		76420	Land Rover Defender Transformable Car
		76400	Land Rover Defender Transformable Car
		77620	RS Wolf Warriors
		77640	RS Wolf Warriors
		77720	Mercedes-Benz Container Truck
		49600-14	BMW I8 Racing Set
		77700-14	Mercedes-Benz Container Truck with Helicopter
		77760-14	Mercedes-Benz Container Truck with Helicopter
		57500-5	Lamborghini Aventador J
		52300	NEW BMW 6S
		52400	Porsche Panamera
		52500	Lamborghini Gallardo LP550-2
		52600	Lamborghini Aventador LP700-4
		52700	Lamborghini Gallardo LP550-2



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Tests Conducted

Reference No./Description	:	42800-8	Porsche GT3 RS
		43000-8	Lamborghini Aventador LP700
		47300-8	Ferrari 458 Italia
		47510-8	Audi R8 LMS
		47600-8	Mercedes SLS
		47900-8	Range Rover Evoque
		48000-8	BMW M3
		49600-8	BMW I8
		50100-8	Ferrari LaFerrari
		53400-8	Ferrari 458 Italia
		53610-8	Audi R8 LMS
		53400-10	Ferrari 458 Italia
		53500-10	Ferrari F12
		53600-10	Audi R8
		53610-10	Audi R8 LMS
		53700-10	Lamborghini Sesto Elemento
		54100-10	Mercedes SLS AMG
		75810	Ferrari LaFerrari Aperta
		75610	Ferrari 488 GTB
		78110	Ford GT
		78160	Ford GT
		78170	Ford GT
Reference No	:	78900,79000,79100,79200,79300,79400,79500,79600,79700,79800,79900	

End of report

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To: RASTAR GROUP

Ref: FC-180 (1106)

Date: Jul 19, 2018

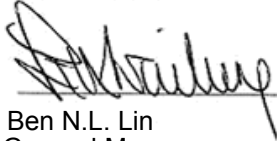
Re : Report Revision Notification

Intertek Testing Services Report Number GZHH00273687 Dated Mar 22, 2018

Please be informed that all the content recorded in the above captioned report will be void. This captioned report is now supersede by a revised Intertek Testing Services Report, GZHH00273687S1.

Thank you for your attention.

Authorized by:
For Intertek Testing Services Shenzhen Ltd.
Guangzhou Branch, Hardlines



Ben N.L. Lin
General Manager

