

Test Report

Report No. SCL01J041937t

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Applicant

Address

The following sample(s) and sample information was/were submitted and identified by/on the behalf of the client

Sample Name Sound Puzzle/ Alphabet Sound Puzzle/ Numbers Sound Puzzle
Item No.

PO No.

PDC

DW17128

Shipment Quantity

96/84/3361/2208,1692/2508,384/516

Factory Name

DW

Exported to

NA

Country of origin

China

Carton No.

NA

Customer

Original/Purpose

Chris BT

Quantity of sample

4pcs/style

Client Specified Age Grading

Not stated

Labeled Age Grading

3+(0340,723,0339); 2+(10267,10342,10732)

Age Group Applied in Testing

Over 3 years(0340,723,0339); Over 18 months(10267,10342,10732)

Sample Received Date

Jun. 23, 2017

Testing Period

Jun. 23, 2017 to Jul. 4, 2017

Test Conducted:

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

Tested by

Mason Zhang

Reviewed by

[Signature]

Approved by

Victor Wang

Date

Jul. 5, 2017

Victor Wang
Lab Manager

No. T183992595

Centre Testing International Group Co.,Ltd.

Hongwei Industrial Zone, Bao'an 70 District, Shenzhen, Guangdong, China



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Executive Summary:

TEST REQUEST

European Standard on Safety of Toys

- EN 71-1:2014 Mechanical and Physical Properties
- EN 71-2:2011+A1:2014 Flammability of Toys
- EN 71-3:2013+A1:2014 Migration of certain elements

CONCLUSION

PASS

PASS

PASS

***** For Further Details, Please Refer to the Following Page(s) *****

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European Standard on Safety of Toys

▼ Mechanical and physical properties

As specified in European Standard on Safety of Toys EN 71 part 1:2014.

<u>Clause</u>	<u>Description</u>	<u>Assessment</u>
4	General requirements	
4.1	Material cleanliness.....	Pass
4.7	Edges.....	Pass
4.8	Points and metallic wires.....	Pass
4.20	Acoustics.....	Pass
5	Toys intended for children under 36 months	
5.1	General requirements:	
5.1a	Small part requirement on toys & removable Components (Test method 8.2).....	Pass
5.1b	Torque test (Test method 8.3).....	Pass
	Tension test (Test method 8.4).....	Pass
	Drop test (Test method 8.5).....	Pass
	Impact test (Test method 8.7).....	Pass
	Compression test (Test method 8.8).....	Pass
	Sharp edge (Test method 8.11).....	Pass
	Sharp point (Test method 8.12).....	Pass
7	Warnings and instructions for use	
7.1	General.....	Pass
7.2	Toys not intended for children under 36 months.....	Pass
	(Remark 1: Small part(s) was(were) found before abuse test. It is acceptable because appropriate age warning was found on the packaging.)	

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Annex
A.33

Warnings, markings and instructions for use

--CE marking requirement

See Remark 2

Remark 2: Toys made available on the market must bear the CE marking. The CE marking must be subject to the general principle set out in Article 30 of Regulation(EC) NO 765/2008. The CE marking must be affixed visibly, legibly and indelibly to the toy, to an affixed label or to the packaging. In the case of small toys and toys consisting of small parts, the CE marking may alternatively be affixed to a label or an accompanying leaflet. Where, in the case of toys sold in counter displays, that is not technically possible, and on condition that the counter display was originally used as packaging for the toy, the CE marking may be affixed to the counter display. Where the CE marking is not visible from outside the packaging, if any, it shall as a minimum be affixed to the packaging. Where specific legislation does not impose specific dimensions, the CE marking must be at least 5 mm high.

--Manufacturer and importer's name or registered name/trade mark and address

See Remark 3

Remark 3: The manufacturer's name registered trade name or registered trade mark and the address at which the manufacture can be contacted must be indicated on the toy or, where that is not possible, on its packaging or in a document accompanying the toy. This requirement applies also to the name and address etc. of any importer.

--Product Identification: type, batch, serial or model number or other element

Pass

Note:

- Only applicable clause(s) was/ were shown.

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▼ **Flammability of Toys**

As specified in European Standard on Safety of Toys EN 71 part 2:2011+A1:2014.

<u>Clause</u>	<u>Description</u>	<u>Assessment</u>
4	Requirements	
4.1	General	Pass
	(The following materials shall not be used in the manufacture of toys except as provided in EN 71-2:2011+A1:2014 : Celluloid, materials with the same behaviour in fire as celluloid, materials with a piled surface which produce surface flash, flammable gases, extremely flammable liquids, highly flammable liquids, flammable liquids and flammable gels.)	

Note:

- Only applicable clause(s) was/ were shown.

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▼ EN 71-3:2013+A1:2014 Migration of certain elements

Method(s) EN 71-3:2013+A1:2014 was/were used, and the item(s) was/were analyzed by ICP-OES, ICP-MS, HPLC-ICP-MS and/or GC-MS.

Category III: scraped-off toy material

Tested Item(s)	Result (mg/kg)				MDL (mg/kg)	Limit (mg/kg)	Client's Limit (mg/kg)
	001	015	016	020			
Aluminium (Al)	N.D.	N.D.	N.D.	N.D.	50	70000	70000
Antimony (Sb)	N.D.	N.D.	N.D.	N.D.	5	560	60
Arsenic (As)	N.D.	N.D.	N.D.	N.D.	5	47	25
Barium (Ba)	198	N.D.	N.D.	N.D.	50	18750	1000
Boron (B)	N.D.	N.D.	N.D.	N.D.	50	15000	15000
Cadmium (Cd)	N.D.	N.D.	N.D.	N.D.	1	17	17
Chromium (III) ^{#1}	N.D.	N.D.	N.D.	N.D.	0.2	460	460
Chromium (VI)	N.D.	N.D.	N.D.	N.D.	0.002	0.2	0.2
Cobalt (Co)	N.D.	N.D.	N.D.	N.D.	5	130	130
Copper (Cu)	N.D.	N.D.	N.D.	N.D.	50	7700	7700
Lead (Pb)	N.D.	N.D.	N.D.	N.D.	5	160	90
Manganese (Mn)	N.D.	N.D.	N.D.	N.D.	50	15000	15000
Mercury (Hg)	N.D.	N.D.	N.D.	N.D.	5	94	60
Nickel (Ni)	N.D.	N.D.	N.D.	N.D.	5	930	930
Selenium (Se)	N.D.	N.D.	N.D.	N.D.	5	460	460
Strontium (Sr)	N.D.	N.D.	N.D.	N.D.	50	56000	56000
Tin (Sn) ^{#2}	N.D.	N.D.	N.D.	N.D.	2	180000	180000
Organic tin (TBT) ^{#3}	N.D.	N.D.	N.D.	N.D.	0.05	12	12
Zinc (Zn)	N.D.	N.D.	N.D.	N.D.	50	46000	46000

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Tested Item(s)	Result (mg/kg)				MDL (mg/kg)	Limit (mg/kg)	Client's Limit (mg/kg)
	021	022	043	044			
Aluminium (Al)	N.D.	N.D.	N.D.	N.D.	50	70000	70000
Antimony (Sb)	N.D.	N.D.	N.D.	N.D.	5	560	60
Arsenic (As)	N.D.	N.D.	N.D.	N.D.	5	47	25
Barium (Ba)	N.D.	N.D.	N.D.	N.D.	50	18750	1000
Boron (B)	N.D.	N.D.	N.D.	N.D.	50	15000	15000
Cadmium (Cd)	N.D.	N.D.	N.D.	N.D.	1	17	17
Chromium (III) ^{#1}	N.D.	N.D.	N.D.	N.D.	0.2	460	460
Chromium (VI)	N.D.	N.D.	N.D.	N.D.	0.002	0.2	0.2
Cobalt (Co)	N.D.	N.D.	N.D.	N.D.	5	130	130
Copper (Cu)	N.D.	N.D.	N.D.	N.D.	50	7700	7700
Lead (Pb)	N.D.	N.D.	N.D.	N.D.	5	160	90
Manganese (Mn)	N.D.	63	N.D.	N.D.	50	15000	15000
Mercury (Hg)	N.D.	N.D.	N.D.	N.D.	5	94	60
Nickel (Ni)	N.D.	N.D.	N.D.	N.D.	5	930	930
Selenium (Se)	N.D.	N.D.	N.D.	N.D.	5	460	460
Strontium (Sr)	N.D.	N.D.	N.D.	N.D.	50	56000	56000
Tin (Sn) ^{#2}	N.D.	N.D.	N.D.	N.D.	2	180000	180000
Organic tin (TBT) ^{#3}	N.D.	N.D.	N.D.	N.D.	0.05	12	12
Zinc (Zn)	N.D.	N.D.	N.D.	N.D.	50	46000	46000

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Tested Item(s)	Result (mg/kg)				MDL (mg/kg)	Limit (mg/kg)	Client's Limit (mg/kg)
	045	046	047	048			
Aluminium (Al)	N.D.	N.D.	N.D.	N.D.	50	70000	70000
Antimony (Sb)	N.D.	N.D.	N.D.	N.D.	5	560	60
Arsenic (As)	N.D.	N.D.	N.D.	N.D.	5	47	25
Barium (Ba)	N.D.	N.D.	N.D.	N.D.	50	18750	1000
Boron (B)	N.D.	N.D.	N.D.	N.D.	50	15000	15000
Cadmium (Cd)	N.D.	N.D.	N.D.	N.D.	1	17	17
Chromium (III) ^{#1}	N.D.	N.D.	N.D.	N.D.	0.2	460	460
Chromium (VI)	N.D.	N.D.	N.D.	N.D.	0.002	0.2	0.2
Cobalt (Co)	N.D.	N.D.	N.D.	N.D.	5	130	130
Copper (Cu)	N.D.	N.D.	N.D.	N.D.	50	7700	7700
Lead (Pb)	N.D.	N.D.	N.D.	N.D.	5	160	90
Manganese (Mn)	N.D.	N.D.	N.D.	N.D.	50	15000	15000
Mercury (Hg)	N.D.	N.D.	N.D.	N.D.	5	94	60
Nickel (Ni)	N.D.	N.D.	N.D.	N.D.	5	930	930
Selenium (Se)	N.D.	N.D.	N.D.	N.D.	5	460	460
Strontium (Sr)	N.D.	N.D.	74	N.D.	50	56000	56000
Tin (Sn) ^{#2}	N.D.	N.D.	N.D.	N.D.	2	180000	180000
Organic tin (TBT) ^{#3}	N.D.	N.D.	N.D.	N.D.	0.05	12	12
Zinc (Zn)	N.D.	N.D.	N.D.	N.D.	50	46000	46000

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Tested Item(s)	Result (mg/kg)				MDL (mg/kg)	Limit (mg/kg)	Client's Limit (mg/kg)
	049	050	051	052			
Aluminium (Al)	219	251	311	238	50	70000	70000
Antimony (Sb)	N.D.	N.D.	N.D.	N.D.	5	560	60
Arsenic (As)	N.D.	N.D.	N.D.	N.D.	5	47	25
Barium (Ba)	N.D.	N.D.	N.D.	N.D.	50	18750	1000
Boron (B)	N.D.	N.D.	N.D.	N.D.	50	15000	15000
Cadmium (Cd)	N.D.	N.D.	N.D.	N.D.	1	17	17
Chromium (III) ^{#1}	N.D.	N.D.	N.D.	N.D.	0.2	460	460
Chromium (VI)	N.D.	N.D.	N.D.	N.D.	0.002	0.2	0.2
Cobalt (Co)	N.D.	N.D.	N.D.	N.D.	5	130	130
Copper (Cu)	N.D.	N.D.	N.D.	N.D.	50	7700	7700
Lead (Pb)	N.D.	N.D.	N.D.	N.D.	5	160	90
Manganese (Mn)	N.D.	N.D.	N.D.	N.D.	50	15000	15000
Mercury (Hg)	N.D.	N.D.	N.D.	N.D.	5	94	60
Nickel (Ni)	N.D.	N.D.	N.D.	N.D.	5	930	930
Selenium (Se)	N.D.	N.D.	N.D.	N.D.	5	460	460
Strontium (Sr)	N.D.	N.D.	N.D.	N.D.	50	56000	56000
Tin (Sn) ^{#2}	N.D.	N.D.	N.D.	N.D.	2	180000	180000
Organic tin (TBT) ^{#3}	N.D.	N.D.	N.D.	N.D.	0.05	12	12
Zinc (Zn)	N.D.	N.D.	N.D.	N.D.	50	46000	46000

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Tested Item(s)	Result (mg/kg)			MDL (mg/kg)	Limit (mg/kg)	Client's Limit (mg/kg)
	053	054	055			
Aluminium (Al)	300	344	417	50	70000	70000
Antimony (Sb)	N.D.	N.D.	N.D.	5	560	60
Arsenic (As)	N.D.	N.D.	N.D.	5	47	25
Barium (Ba)	N.D.	N.D.	N.D.	50	18750	1000
Boron (B)	N.D.	N.D.	N.D.	50	15000	15000
Cadmium (Cd)	N.D.	N.D.	N.D.	1	17	17
Chromium (III) ^{#1}	N.D.	N.D.	N.D.	0.2	460	460
Chromium (VI)	N.D.	N.D.	N.D.	0.002	0.2	0.2
Cobalt (Co)	N.D.	N.D.	N.D.	5	130	130
Copper (Cu)	N.D.	N.D.	N.D.	50	7700	7700
Lead (Pb)	N.D.	N.D.	N.D.	5	160	90
Manganese (Mn)	N.D.	N.D.	N.D.	50	15000	15000
Mercury (Hg)	N.D.	N.D.	N.D.	5	94	60
Nickel (Ni)	N.D.	N.D.	N.D.	5	930	930
Selenium (Se)	N.D.	N.D.	N.D.	5	460	460
Strontium (Sr)	N.D.	N.D.	N.D.	50	56000	56000
Tin (Sn) ^{#2}	N.D.	N.D.	N.D.	2	180000	180000
Organic tin (TBT) ^{#3}	N.D.	N.D.	N.D.	0.05	12	12
Zinc (Zn)	N.D.	N.D.	N.D.	50	46000	46000

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Remark:

- MDL = Method Detection Limit
- N.D. = Not Detected (<MDL)
- mg/kg = ppm = parts per million
- Filter paper was used instead of membrane filter in lab testing.
- ⁴¹ Trivalent chromium (Cr (III)) = Chromium (Cr) - Hexavalent chromium (Cr (VI)), where the chromium content exceeded the limits of hexavalent chromium and/or trivalent chromium, then hexavalent chromium was analyzed by HPLC-ICP-MS and trivalent chromium content was calculated using the formula.
- ⁴² Tin(Sn) content can be used for screen test for organic tins analysis to show compliance with the requirement of EN 71-3:2013+A1:2014.
- ⁴³ The migration of organic tin is expressed as tributyltin (TBT), where the tin content exceeded the limit of organic tin, ten organic tins listed in table were determined by GC-MS and the client should be noted there are other organic tins may be present in toy materials.

Organic tins tested under EN 71-3:2013+A1:2014
Methyl tin (MeT)
Butyl tin (BuT)
Dibutyl tin (DBT)
Tributyl tin (TBT)
Tetrabutyl tin (TeBT)
n-Octyl tin (MOT)
Di-n-octyl tin (DOT)
Di-n-propyl tin (DProT)
Diphenyl tin (DPhT)
Triphenyl tin (TPhT)

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Tested Sample/Part Description

- 001 Black coating (back of puzzles, 267/10267/20267,342/10342/20342,723/10723/20723,732 /10732/20732,340/10340/20340,339/10339/20339)
- 015 Red plastic (handle, 267/10267/20267,342/10342/20342,732/10732/20732)
- 016 Transparent plastic (light sensor, 267/10267/20267, 342/10342/20342, 723/10723/20723, 732/10732/20732, 340/10340/20340, 339/10339/20339)
- 020 Beige plastic (battery case, 267/10267/20267, 342/10342/20342, 723/10723/20723, 732/10732/20732, 340/10340/20340, 339/10339/20339)
- 021 Natural plywood (puzzles & board, 267/10267/20267, 342/10342/20342, 723/10723/20723, 732/10732/20732, 340/10340/20340, 339/10339/20339)
- 022 Brown MDF (board, 267/10267/20267,342/10342/20342,723/10723/20723,732/10732/ 20732,340 /10340/20340,339/10339/20339)
- 043 White paper with multi-color coating (puzzles & board, 267/10267/20267)
- 044 White paper with multi-color coating (puzzles & board, 342/10342/20342)
- 045 White paper with multi-color coating (puzzles & board, 723/10723/20723)
- 046 White paper with multi-color coating (puzzles & board, 732/10732/20732)
- 047 White paper with multi-color coating (puzzles & board, 340/10340/20340)
- 048 White paper with multi-color coating (puzzles & board, 339/10339/20339)
- 049 White paper label with multi-color coating (product label, 267/10267/20267)
- 050 White paper label with multi-color coating (product label, 342/10342/20342)
- 051 White paper label with multi-color coating (product label, 723/10723/20723)
- 052 White paper label with multi-color coating (product label, 732/10732/20732)
- 053 White paper label with multi-color coating (product label, 340/10340/20340)
- 054 White paper label with multi-color coating (product label, 339/10339/20339)
- 055 White paper sticker with black coating (sticker of bottom, 267/10267/20267,342/10342/20342,732 /10732/20732)

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Photo(s) of the sample(s)



*** End of Report ***

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