

## Test Report

Number: SHAH01112880

Applicant: NINGBO MIDEER TOYS CO LTD  
RM501, BUILDING NO.1, YIDU CULTURE SQUARE, HAISHU  
DISTRIC, NINGBO, ZHEJIANG

Date: 05 Jul, 2019

Attn: VERA

### Sample Description:

Two(2) sets of submitted sample said to be :

Item Name : **wipe and write activity-123 cards; wipe and write activity-ABC cards; wipe and write activity-word cards.**  
Item No. : **MD1031;MD1032;MD1033.**  
Quantity : 2 sets  
Packaging Provided By Applicant : Yes  
Goods Exported To : Europe,Australia.  
Country Of Origin : China

### Tests Conducted:

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

### Conclusion:

Tested Samples	Standard	Result
Submitted components of submitted sample	EN 71-3:2013+A3:2018 on migration of certain elements	Pass
	EN 71-3:2013+A3:2018 on migration of certain elements & EU 2018/725 amending 2009/48/EC (effective from Nov 18,2019) for chromium (VI) migration	Pass
Submitted sample	EN71-1: 2014+ A1: 2018 for Mechanical And Physical Properties	Pass
	EN71-2: 2011+A1: 2014 Flammability Test	Pass

To be continued

Authorized By:



Young Zhu  
Vice President



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### 1. 19 Toxic Elements Migration Test

#### (A) Test Result

As per EN 71-3:2013+A3:2018 and followed by Inductively Coupled Plasma Atomic Emission Spectrometry, Inductively Coupled Argon Mass Spectrometry, Ion Chromatography- Inductively Coupled Plasma-Mass Spectrometry, and Gas Chromatographic - Mass Spectrometry

Category (II): Liquid or sticky toy material

Element	(6)#	Result (mg/kg)	Limit (mg/kg)
Aluminium (Al)	< 100		1406
Antimony (Sb)	1.6		11.3
Arsenic (As)	< 0.5		0.9
Barium (Ba)	< 10		375
Boron (B)	< 50		300
Cadmium (Cd)	< 0.1		0.3
Chromium (III) (Cr III) **	< 1.0		9.4
Chromium (VI) (Cr VI) **	< 0.003		0.005
Cobalt (Co)	< 1.0		2.6
Copper (Cu)	< 10		156
Lead (Pb)	< 0.1		0.5
Manganese (Mn)	< 10		300
Mercury (Hg)	< 1.0		1.9
Nickel (Ni)	< 1.0		18.8
Selenium (Se)	< 1.0		9.4
Strontium (Sr)	< 100		1125
Tin (Sn)	< 10		3750
Organic tin **	< 0.15		0.2
Zinc (Zn)	< 100		938

Category (III): Scraped-off toy material

Element	Result (mg/kg)				Limit (mg/kg)
	(1)#	(2)	(5)	(7)#	
Aluminium (Al)	< 300	< 300	< 300	< 300	70000
Antimony (Sb)	< 10	< 10	< 10	< 10	560
Arsenic (As)	< 10	< 10	< 10	< 10	47
Barium (Ba)	16	< 10	< 10	< 10	18750
Boron (B)	< 50	< 50	< 50	< 50	15000
Cadmium (Cd)	< 5	< 5	< 5	< 5	17
Chromium (III) (Cr III) **	< 10	< 10	< 10	< 10	460
Chromium (VI) (Cr VI) **	< 0.025	< 0.025	< 0.025	< 0.025	0.2/0.053©
Cobalt (Co)	< 10	< 10	< 10	< 10	130
Copper (Cu)	< 10	< 10	< 10	< 10	7700
Lead (Pb)	< 10	< 10	< 10	< 10	23
Manganese (Mn)	< 10	< 10	< 10	< 10	15000
Mercury (Hg)	< 10	< 10	< 10	< 10	94
Nickel (Ni)	< 10	< 10	< 10	< 10	930
Selenium (Se)	< 10	< 10	< 10	< 10	460
Strontium (Sr)	< 100	< 100	< 100	< 100	56000
Tin (Sn)	< 10	< 10	< 10	< 10	180000
Organic tin **	< 3.0	< 3.0	< 3.0	< 3.0	12



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Zinc (Zn)	< 100	< 100	< 100	< 100	46000
Element	Result (mg/kg)			Limit (mg/kg)	
	(8)#	(9)#			
Aluminium (Al)	< 300	< 300		70000	
Antimony (Sb)	< 10	< 10		560	
Arsenic (As)	< 10	< 10		47	
Barium (Ba)	< 10	< 10		18750	
Boron (B)	< 50	80		15000	
Cadmium (Cd)	< 5	< 5		17	
Chromium (III) (Cr III) **	< 10	< 10		460	
Chromium (VI) (Cr VI) **	< 0.025	< 0.025		0.2/0.053 <sup>©</sup>	
Cobalt (Co)	< 10	< 10		130	
Copper (Cu)	< 10	< 10		7700	
Lead (Pb)	< 10	< 10		23	
Manganese (Mn)	< 10	< 10		15000	
Mercury (Hg)	< 10	< 10		94	
Nickel (Ni)	< 10	< 10		930	
Selenium (Se)	< 10	< 10		460	
Strontium (Sr)	< 100	< 100		56000	
Tin (Sn)	< 10	< 10		180000	
Organic tin **	< 3.0	< 3.0		12	
Zinc (Zn)	< 100	< 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.

-Unless specified, test results of Chromium (III), Chromium (VI) and Organic tin were derived from migration results of total chromium and tin respectively.

-Migration of Chromium (III) = Migration of total Chromium – Migration of Chromium(VI), when performed confirmation test for Chromium (VI)

© = The new chromium (VI) migration limit [(0.053mg/kg for Category (III))] were quoted from directive (EU) 2018/725 amending 2009/48/EC effective from 18 November 2019.

# = Confirmation of Chromium (VI) test was performed on the tested component. And the reported value of migration of Chromium (III) = migration value of total Chromium – migration value of Chromium(VI).

Tested Components: See component list in the last section of this report.

@ = Since the sample weight of the components (3),(4) were 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



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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).

**2. Mechanical and Physical Test**

As Per European Standard on Safety of Toys EN71-1: 2014+ A1: 2018.

Applicant's Specified Age Group for Testing: For ages 4 years and up

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	NA
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	Projectile toys	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 a 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
4.26	Toy disguise costumes	NA
4.27	Flying toys	NA
5	Toys intended for Children under 36 Months	



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Clause	Testing Items	Assessment
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
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
5.15	Sledges with cords for pulling	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	P
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	Projectile toys	NA
7.8	Imitation protective masks and helmets	NA
7.9	Toy kites	NA
7.10	Roller skates, inline skates and skateboards and certain other ride-on toys	NA
7.11	Toys intended to be 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
7.23	Toys intended to be attached to a cradle, cot or perambulator	NA
7.24	Sledges with cords for pulling	NA



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Clause	Testing Items	Assessment
7.25	Flying toys	NA
7.26	Improvised projectiles	NA

Remark: P = Pass NA = Not Applicable

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

### 3. 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	
4.2.2	Beards, moustaches, wigs, etc., made from hair, pile or material with similar features, which protrude 50 mm or more from the surface of the toy	NA
4.2.3	Beards, moustaches, wigs, etc., made from hair, pile or material with similar features, which protrude less than 50 mm from the surface of the toy	NA
4.2.4	Full or partial moulded head masks	NA
4.2.5	Flowing elements of 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

Tested components:

- (1) Beige paper board with plastic film and underlying four-color printed coating. (cards)
- (2) Blue plastic. (cap/top pen)
- (3) Cyan coating on plastic.
- (4) Blue coating on plastic.
- (5) White plastic. (watercolor penpoint)
- (6) Blue ink.
- (7) White felt. (nib)
- (8) Black woven fabric.
- (9) Beige paper board.



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### Tests Conducted



Picture 1: Submitted sample



Picture 2: Submitted sample



Picture 3: Submitted sample

Date Sample Received: Jun 26, 2019

Testing Period: Jun 26, 2019 to Jul 05, 2019

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End of report

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