

# GUANGDONG WONDER TESTING INTERNATIONAL CO., LTD.

## TEST REPORT

Report No.: WDJ25090009ENR1

Applicant: Mid Ocean Brands B.V.

Address: Unit 711- 716, 7/F., Tower A, 83 King Lam  
Street

Cheung Sha Wan, Kowloon, Hong Kong

Date: Sep. 13, 2025



Traceability

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Cheung Sha Wan, Kowloon, Hong Kong

The following information was (were) submitted and identified by client:

**Sample Name:** Plastic sliding puzzle**Style of Sample:** KC4861**Supplier:** 107961**Labeled Age Grading:** Not stated**Applicant's Specified:** 3+ years**Age Group for Testing:** 3+ years**Sample Received Date:** Sep. 02, 2025**Completed Date:** Sep. 11, 2025**Test Result(s):** Please refer to next page(s).**Test Requested and Conclusion(s):**

No.	Test Sample(s)	Standard(s) and Requirement(s)	Conclusion(s)	Signed by
As requested by the client, according to European Directive 2009/48/EC and its subsequent amendments, test items as below:				
1	Submitted sample	Mechanical and Physical Properties according to EN71 Part 1: 2014+A1:2018	PASS	Sally
2	Tested materials of submitted samples	Flammability according to EN71 Part 2:2020+A1:2025	PASS	
3	Tested materials of submitted samples	Migration of certain elements according to EN 71 Part 3:2019+A2:2024	PASS	Andy Zhu
4	Tested materials of submitted samples	Cadmium(Cd) content-Regulation (EC) No.1907/2006, REACH Annex XVII (entry 23)	PASS	
5	Tested materials of submitted samples	Benzene content-Regulation (EC) No.1907/2006, REACH Annex XVII (entry 5)	PASS	
6	Tested materials of submitted samples	Phthalates content-Regulation (EC) No.1907/2006, REACH Annex XVII (entry 51&52)	PASS	
7	Tested materials of submitted samples	Polycyclic Aromatic Hydrocarbons (PAHs) contents according to AfPS GS 2019:01 PAK	PASS	

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**TEST PART DESCRIPTION:**

1# Whole product

2# White plastic



**Test Result(s):****1. European Standard-Safety of Toys: EN71 Part 1: 2014+A1:2018-Mechanical and Physical Properties**

Test Items	Test Results
	1#
4.1 Material cleanliness	PASS
4.2 Assembly	N/A
4.3 Flexible plastic sheeting	N/A
4.4 Toy bags	N/A
4.5 Glass	N/A
4.6 Expanding materials	N/A
4.7 Edges	PASS
(a) Edges of metal or glass	N/A
(b) Overlap joints	N/A
(c) Edges of metal and of rigid polymeric material	PASS
(d) Functional edges	N/A
4.8 Points and wires	PASS
(a) Points	PASS
(b) Sharp functional points	N/A
(c) Metallic wires intended to be bent	N/A
(d) Metallic wires not designed to be bent	N/A
(e) Splinters on surfaces and accessible edges of toys	N/A
4.9 Protruding parts	N/A
4.10 Parts moving against each other	N/A
4.10.1 Folding and slide mechanism	N/A
4.10.2 Driving mechanisms	N/A
4.10.3 Hinges	N/A
4.10.4 Springs	N/A
4.11 Mouth-actuated toys and other toys intended to be put in the mouth	N/A
4.12 Balloons	N/A
4.13 Cords of toy kites and other flying toys	N/A
4.14 Enclosures	N/A
4.14.1 Toys which a children can enter	N/A
4.14.2 Masks and helmets	N/A
4.15 Toys intended to bear the mass of a child	N/A
4.15.1 Toys propelled by the child or by other means	N/A

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Test Items	Test Results
	1#
4.15.2 Toy bicycles	N/A
4.15.3 Rocking horses and similar toys	N/A
4.15.4 Toys not propelled by a child	N/A
4.15.5 Toys scooters	N/A
4.16 Heavy immobile toys	N/A
4.17 Projectiles toys	N/A
4.17.1 General	N/A
4.17.2 All projectiles	N/A
4.17.3 Projectile toys with stored energy	N/A
4.17.4 Certain projectile toys without stored energy	N/A
4.18 Aquatic toys and inflatable toys	N/A
4.19 Percussion caps specifically designed for use in toys and toys using percussion caps	N/A
4.20 Acoustics	N/A
4.21 Toys containing a non-electrical heat source	N/A
4.22 Small balls	N/A
4.23 Magnets	N/A
4.23.1 General	N/A
4.23.2 Toys other than magnetic/electrical experimental sets	N/A
4.23.3 Magnetic/ electrical experimental sets	N/A
4.24 Yo-yo balls	N/A
4.25 Toys attached to food	N/A
4.26 Toy Disguise Costumes	N/A
4.27 Flying toys	N/A

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## Test Result(s):

Test Items	Test Results
	1#
5. Toys intended for children under 36 months	
5.1 General requirements	N.A.
(a) Toys and removable components of toys shall not, whatever their position fit entirely in the cylinder	N.A.
(b) When tested toys shall not produce any parts which, whatever their position, fit entirely in the cylinder, or exhibit accessible hazardous sharp edges or accessible hazardous sharp points	N.A.
(c) Metal points and wires with a cross section of 2 mm or less	N.A.
(d) Large and bulky toys	N.A.
(e) Glued wooden toys and toys with glued-on plastic decals	N.A.
(f) The casing of toys	N.A.
(g) For foam toys and toys containing accessible foam components	N.A.
5.2 Soft-filled toys and soft-filled parts of a toy	N.A.
(a) Hard and sharp contaminants	N.A.
(b) Soft-filled toys and soft-filled parts of a toy containing small parts	N.A.
(c) fibrous filling material	N.A.
5.3 Plastic sheeting	N.A.
5.4 Cord, chains and electrical cables in toys	N.A.
5.4.1 General	N.A.
5.4.2 Cords and chains in toys intended for children under 18 months	N.A.
5.4.3 Cords and chains in toys intended for children of 18 months or over but under 36 months	N.A.
5.4.4 Fixed loops, tangled loops and nooses	N.A.
5.4.5 Cords and chains on pull along toys	N.A.
5.4.6 Electrical cables	N.A.
5.4.7 Cross-sectional dimension of certain cords	N.A.
5.4.8 Self-retracting cords	N.A.
5.4.9 Toys attached to or intended to be strung across a cradle, cot or perambulator	N.A.
5.5 Liquid-filled toys	N.A.
5.6 Speed limitation of electrically-driven ride-on toys	N.A.
5.7 Glass and porcelain	N.A.
5.8 Shape and size of certain toys	N.A.
5.9 Toys comprising monofilament fibres	N.A.



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Test Items	Test Results
	1#
5.10 Small balls	N.A.
5.11 Play figures	N.A.
5.12 Hemispheric-shaped toys	N.A.
5.13 Suction cups	N.A.
5.14 Straps intended to be worn fully or partially around the neck	N.A.
5.15 Sledges with cords for pulling	N.A.

Test Items	Test Results
	1#
6. Packaging	N.A.

## Test Result(s):

Test Items	Test Results
	1#
7. Warnings, markings and instructions for use Tracking information [CE mark, importer / manufacturer mark (name, address), product identification]	Present
7.1 General	PASS
7.2 Toys not intended for children under 36 months	PASS
7.3 Latex balloons	N.A.
7.4 Aquatic toys	N.A.
7.5 Functional toys	N.A.
7.6 Hazardous sharp functional edges and points	N.A.
7.7 Projectiles toys	N.A.
7.8 Imitation protective masks and helmets	N.A.
7.9 Toy kites	N.A.
7.10 Roller skates, inline skates, skateboards and certain other ride-on toys	N.A.
7.11 Toys intended to be strung across a cradle,cot,or perambulator	N.A.
7.12 Liquid filled tethers	N.A.
7.13 Percussion caps specifically designed for use in toys	N.A.
7.14 Acoustics	N.A.
7.15 Toys bicycle	N.A.
7.16 Toys intended to bear the mass of a child	N.A.
7.17 Toys comprising monofilament fibers	N.A.
7.18 Toy scooters	N.A.
7.19 Rocking horses and similar toys	N.A.
7.20 Magnetic/electrical experimental sets	N.A.
7.21 Toys with electrical cables exceeding 300mm in length	N.A.
7.22 Toys with cords or chains intended for children of 18 months and over but under 36 months	N.A.
7.23 Toys intended to be attached to a cradle, cot or perambulator	N.A.
7.24 Sledges with cords for pulling	N.A.
7.25 Flying toys	N.A.
7.26 Improvised projectiles	N.A.

**Remark:** It is drawn to your attention that the product identification number, name and address of manufacturer and importer in EEC country together with CE-marking should appear as specified in Directive-2009/48/EC-Safety of toys.



## Test Result(s):

## 2. European Standard-Safety of Toys: EN71 Part 2: 2020+A1:2025-Flammability

Test Items	Test Results
	1#
4.1 General Requirements	PASS
4.2 Toys to be worn on the head	N.A.
4.3 Toy disguise costumes and toys intended to be worn by a child in play	N.A.
4.4 Toys intended to be entered by a child	N.A.
4.5 Soft filled toys	N.A.

**Test Result(s):****3. Migration of certain elements****Test Method:** With reference to:

Extractable Chromium (VI): With reference to EN 71-3:2019+A2:2024, analysis was performed by IC-ICP-MS.

Extractable Chromium (III): With reference to EN 71-3:2019+A2:2024, calculated by subtracting the Chromium (VI) concentration from the total chromium concentration.

Other Elements: With reference to EN 71-3:2019+A2:2024, analysis was performed by ICP-MS.

Extractable Organic Tin: With reference to EN 71-3:2019+A2:2024, analysis was performed by GC-MS.

Test Item(s)	Unit	MDL	Result	Category III
			2#	
Extractable Lead (Pb)	mg/kg	0.5	N.D.	23
Extractable Antimony (Sb)	mg/kg	5	N.D.	560
Extractable Arsenic (As)	mg/kg	0.5	N.D.	47
Extractable Barium (Ba)	mg/kg	50	N.D.	18750
Extractable Cadmium (Cd)	mg/kg	0.3	N.D.	17
Extractable Chromium (III) (Cr III)	mg/kg	5	N.D.	460
Extractable Chromium (VI)(Cr VI)	mg/kg	0.02	N.D.	0.053
Extractable Mercury (Hg)	mg/kg	1	N.D.	94
Extractable Selenium (Se)	mg/kg	5	N.D.	460
Extractable Boron (B)	mg/kg	50	N.D.	15000
Extractable Cobalt (Co)	mg/kg	0.5	N.D.	130
Extractable Manganese (Mn)	mg/kg	50	N.D.	15000
Extractable Strontium (Sr)	mg/kg	50	N.D.	56000
Extractable Tin (Sn)	mg/kg	5	N.D.	180000
Extractable Zinc (Zn)	mg/kg	50	N.D.	46000
Extractable Copper (Cu)	mg/kg	50	N.D.	7700
Extractable Aluminum (Al)	mg/kg	50	N.D.	28130
Extractable Nickel (Ni)	mg/kg	10	N.D.	930
Extractable Organic Tin	mg/kg	0.02	N.D.	12

**Limited Value for migration of certain elements:**

Test Item(s)	Unit	Limited Value*		
		Category I	Category II	Category III
Extractable Lead (Pb)	mg/kg	2.0	0.5	23
Extractable Antimony (Sb)	mg/kg	45	11.3	560
Extractable Arsenic (As)	mg/kg	3.8	0.9	47
Extractable Barium (Ba)	mg/kg	1500	375	18750
Extractable Cadmium (Cd)	mg/kg	1.3	0.3	17
Extractable Chromium (III) (Cr III)	mg/kg	37.5	9.4	460
Extractable Chromium (VI) (Cr VI)	mg/kg	0.02	0.005	0.053
Extractable Mercury (Hg)	mg/kg	7.5	1.9	94
Extractable Selenium (Se)	mg/kg	37.5	9.4	460
Extractable Boron (B)	mg/kg	1200	300	15000
Extractable Cobalt (Co)	mg/kg	10.5	2.6	130
Extractable Manganese (Mn)	mg/kg	1200	300	15000
Extractable Strontium (Sr)	mg/kg	4500	1125	56000
Extractable Tin (Sn)	mg/kg	15000	3750	180000
Extractable Zinc (Zn)	mg/kg	3750	938	46000
Extractable Copper (Cu)	mg/kg	622.5	156	7700
Extractable Aluminum (Al)	mg/kg	2250	560	28130
Extractable Nickel (Ni)	mg/kg	75	18.8	930
Extractable Organic Tin	mg/kg	0.9	0.2	12

**Remark:** \* The Limited value is based on European Directive 2009/48/EC and its subsequent amendments and EN 71-3:2019+A2:2024.

Category I: Dry, brittle, powder-like or pliable materials

Category II: Liquid or sticky materials

Category III: Scrapped-off materials

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## Test Result(s):

### 4. Cadmium (Cd) Content

**Test Method:** With reference to EN 1122- 2001 Method B, Analysis was performed by ICP-AES.

Test Item(s)	MDL (mg/kg)	Test Results (mg/kg)	Limited Value (mg/kg)
		2#	
Cadmium (Cd)	10	N.D.	100

**Remark:** The above limited value was quoted according to EC Regulation 1907/2006, REACH Annex XVII (entry 23).

### 5. Benzene Content

**Test Method:** With reference to ASTM D4526-20, Analysis was performed by HS-GC-FID.

Test Item(s)	Unit	MDL (mg/kg)	Test Results (mg/kg)	Limited Value (mg/kg)
			2#	
Benzene	mg/kg	5	N.D.	5

**Remark:** The above limited value was quoted according to EC Regulation 1907/2006, REACH Annex XVII (entry 5).

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**Test Result(s):****6. Phthalates Content****Test Method:** With reference to EN 14372-2004, Analysis was performed by GC-MS.

Test Item(s)	Unit	MDL	Test Results	Limited Value
			2#	
Dibutyl Phthalate((DBP)	%	0.005	N.D.	---
Benzylbutyl Phthalate(BBP)		0.005	N.D.	---
Di-(2-ethylhexyl)Phthalate(DEHP)		0.005	N.D.	---
Di-isobutyl phthalate (DIBP)		0.005	N.D.	---
Total (DBP+BBP+DEHP+DIBP)		---	< 0.020	< 0.1

Test Item(s)	Unit	MDL	Test Results	Limited Value
			2#	
Di-iso-nonylphthalate(DINP)	%	0.005	N.D.	---
Di-n-octylphthalate(DNOP)		0.005	N.D.	---
Di-iso-decylphthalate(DIDP)		0.005	N.D.	---
Total (DINP+DNOP+DIDP)		---	< 0.015	< 0.1

**Remark:** The above limited value was quoted according to EC Regulation 1907/2006, REACH Annex XVII (entry 51&52).

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**Test Result(s):****7.PAHs Contents****Test Method:** With reference to AfPS GS 2019:01 PAK, Analysis was performed by GC-MS.

Test Items	Unit	MDL	Test Results
			2#
Naphthalene	mg/kg	0.1	N.D.
Phenanthrene		0.1	N.D.
Anthracene		0.1	N.D.
Fluoranthene		0.1	N.D.
Pyrene		0.1	N.D.
Benzo[a]anthracene		0.1	N.D.
Chrysene		0.1	N.D.
Benzo[b]fluoranthene		0.1	N.D.
Benzo[k]fluoranthene		0.1	N.D.
Benzo[a]pyrene		0.1	N.D.
Indeno[1,2,3-cd]pyrene		0.1	N.D.
Dibenzo[a,h]anthracene		0.1	N.D.
Benzo[g,h,i]perylene		0.1	N.D.
Benzo[j]fluoranthene		0.1	N.D.
Benzo[e]pyrene		0.1	N.D.
Sum of 15 PAHs		---	N.D.



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## LIMITS(mg/kg) FOR PAH IN PRODUCTS:

Parameter	Category 1	Category2		Category 3	
	Materials intended to be placed in the mouth, or materials in toys according to Directive 2009/48/EC or materials in articles for the use by children up to 3 years of age coming into long-term contact with skin (more than 30s) during the intended use	Materials not covered by category 1, coming into long-term contact (more than 30s) or short-term repetitive contact with skin during the intended or foreseeable use		Materials not covered by category 1 nor by category 2, coming into short-term contact (up to 30s) with skin during the intended or foreseeable use	
		a. use by children	b. other consumer products	a. use by children	b. other consumer products
Naphthalene	< 1	< 2		< 10	
Phenanthrene	Total < 1	Total < 5	Total < 10	Total < 20	Total < 50
Anthracene					
Fluoranthene					
Pyrene					
Benzo[a]anthracene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Chrysene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[b]fluoranthene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[k]fluoranthene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[a]pyrene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Indeno[1,2,3-cd]pyrene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Dibenzo[a,h]anthracene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[g,h,i]perylene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[j]fluoranthene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[e]pyrene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
<b>Sum of 15 PAHs</b>	< 1	< 5	< 10	< 20	< 50

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- Note:
1. mg/kg = milligrams per kilograms;
  2. MDL= method detection limit;
  - 3.N.D. = not detected, < MDL
  4. “▲” =Mixed test
  - 5.All items in this report are subcontracted items.
  - 6.WDJ25090009EN is replaced by this report.

**Photo(s) of Sample(s):**



MOB / KC4861  
PO BOX 644  
6710 BP (NL)  
PO:41-116926  
Made in China  
[www.momannual.com](http://www.momannual.com)  
Warning. Not suitable for  
children under 3 years.  
Small parts. choking hazard!



Plastic sliding puzzle

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

## Report Remark

1. The company guarantees the scientificity, impartiality and accuracy, is responsible for test data, and keeps confidential for the samples and technical data provided.
2. The information of the samples submitted for inspection is provided by applicant, and the company is not responsible for its authenticity or integrity.
3. The results shown in this report refer only to the sample(s) submitted.
4. This report is invalid without signature of approver, is invalid if not affixed with Authorized Stamp of Test and Paging Seal. The data/results in reports without an CMA stamp are not in the accredited scope of CMA cannot be as domestic social impartiality proof data. It can only used for research and development, teaching, internal quality control, and only for internal reference.
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6. If there are any questions about the report, please contact us.
7. Any dispute of this report must be raised to the center within 10 workdays since the date of receipt, or it will not be accepted.
8. For samples with unstable performance, re-inspection will not be accepted.

### CONTACT US

Company Name: GUANGDONG WONDER TESTING INTERNATIONAL CO., LTD.  
Contact Address: Floor 6, No.14, Gaoxin Road, Huadu District, Guangzhou City, Guangdong Province, China  
Tel: 86-020-8689 0001  
Fax: 86-020-8689 6998  
Post Code: 510820  
Website: <http://www.wdwonder.com>

