

## TEST REPORT

Test Report # 19A-006944-2-S1 Date of Report Issue: December 9, 2019  
Date of Sample Received: November 14, 2019 Pages: Page 1 of 9

### CLIENT INFORMATION:

Company: Mid Ocean Brands B.V.  
Address: 7/F, Kings Tower, 111 King Lam Street, Cheung  
Sha Wan, Kowloon, Hong Kong



### SAMPLE INFORMATION:

Product Name: Set of 3pcs brainteasers in pouch  
Style No.: - Labeled Age Grade: -  
Order No. (PO No.): - Client Request Age Grade: 3 years+  
Country of Origin: - Recommended Age Grade: -  
Country of Distribution: Europe Tested Age Grade: 3 years+  
Model No.: MO9191  
Composition/Main Material: Cotton, Iron  
Buyer Name: Mid Ocean Brands B.V.  
Supplier Name: 100396  
Testing Period: 11/04/2019-12/06/2019

### OVERALL RESULT:

**PASS**

Please refer to the following pages for test result summary and appropriate notes.

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*Kevin Lee*

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Technical Manager



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Test(s) marked with 'φ' was subcontracted to external laboratory.

The test result(s) and conclusion(s) in this report relate only to the sample(s) as received and method /regulation section(s) tested as described herein.

If it is not further specified in the report, the decision rule for stating conformity is based on the QIMA decision rule.

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## TEST RESULTS SUMMARY:

At the request of the client, the following tests were conducted:

CONCLUSION	TEST(S) CONDUCTED
PASS	EN 71-3: 2019 Safety of Toys, Migration of Certain Elements
PASS	Regulation (EC) No. 1907/2006 REACH Annex XVII, Item 43 Azocolorants in Textiles
PASS	Regulation (EC) No. 1907/2006 REACH Annex XVII, Item 27 Nickel Release
PASS	EN71-1:2014+A1:2018 Safety of toys - Part 1: Mechanical and physical properties
PASS	EN71-2:2011+A1:2014 Safety of toys - Part 2: Flammability

### Remark:

- 1) Remark: test results are transferred from test report no. 19A-006944-1 date: 12/06/2019
- 2) \*Revised information and supersedes the previous report no. 19A-006944-2 date: 12/06/2019



**DETAILED RESULTS:**

**EN 71-3: 2019 Safety of Toys, Migration of Certain Elements**

Test Method: EN 71-3:2019

Analytical Method: Inductively Coupled Plasma-Mass Spectrometry

Category III: Scraped-off materials

Specimen No.	1	2	3	---	RL (mg/kg)	Soluble Limit (mg/kg)
Test Item	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)		
Aluminum (Al)	ND	ND	ND	---	50	70 000
Antimony (Sb)	ND	ND	ND	---	10	560
Arsenic (As)	ND	ND	ND	---	10	47
Barium (Ba)	ND	ND	ND	---	50	18 750
Boron (B)	ND	ND	ND	---	50	15 000
Cadmium (Cd)	ND	ND	ND	---	5	17
Chromium III (Cr III)^	ND	ND	ND	---	0.02	460
Chromium VI (Cr VI)^	ND	ND	ND	---	0.02	0.053
Cobalt (Co)	ND	ND	ND	---	10	130
Copper (Cu)	ND	ND	ND	---	50	7 700
Lead (Pb)	ND	ND	ND	---	10	23
Manganese (Mn)	ND	ND	ND	---	50	15 000
Mercury (Hg)	ND	ND	ND	---	10	94
Nickel (Ni)	ND	ND	ND	---	50	930
Selenium (Se)	ND	ND	ND	---	10	460
Strontium (Sr)	ND	ND	ND	---	50	56 000
Tin (Sn)	ND	ND	ND	---	1	180 000
Organic Tin^^	ND	ND	ND	---	1	12
Zinc (Zn)	ND	ND	ND	---	50	46 000
<b>Conclusion</b>	PASS	PASS	PASS	---		

*Note:*

mg/kg = Milligrams per kilogram

LT = Less than

ND = Not detected. Result value is less than reporting limit (RL).

^Soluble Chromium is reported when the soluble chromium result below the chromium VI limit.

^^ Soluble Tin is reported when the result is below the adjusted soluble organic tin limit 1 mg/kg.



**DETAILED RESULTS:**

**Regulation (EC) No. 1907/2006 REACH Annex XVII, Item 43 Azocolorants in Textiles**

Test Method: EN 14362-1:2012

Analytical Method: Gas Chromatography with Mass Spectrometry/ Liquid Chromatography-Mass Spectrometer (LC-MS)

Specimen No.		1	---	---	---	Limit (mg/kg)
Test Item	CAS No.	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
4-aminobiphenyl	92-67-1	ND	---	---	---	30
Benzidine	92-87-5	ND	---	---	---	30
4-chloro-o-toluidine	95-69-2	ND	---	---	---	30
2-naphtylamine	91-59-8	ND	---	---	---	30
2-Amino-4-Nitrotoluene	97-56-3	ND	---	---	---	30
5-nitro-o-toluidine	99-55-8	ND	---	---	---	30
4-chloroaniline	106-47-8	ND	---	---	---	30
4 methoxy-m - phenylenediamine	615-05-4	ND	---	---	---	30
4,4'-diaminodiphenyl methane	101-77-9	ND	---	---	---	30
3,3'-dichlorobenzidine	91-94-1	ND	---	---	---	30
3,3'-dimethoxybenzidine	119-90-4	ND	---	---	---	30
3,3'-dimethylbenzidine	119-93-7	ND	---	---	---	30
3,3'-dimethyl-4,4'-diaminodiphenyl methane	838-88-0	ND	---	---	---	30
p-cresidine	120-71-8	ND	---	---	---	30
4,4'-methylene-bis-(2-chloro-aniline)	101-14-4	ND	---	---	---	30
4,4'-oxydianiline	101-80-4	ND	---	---	---	30
4,4'-thiodianiline	139-65-1	ND	---	---	---	30
o-toluidine	95-53-4	ND	---	---	---	30
2,4-toluylenediamine	95-80-7	ND	---	---	---	30
2,4,5-trimethylaniline	137-17-7	ND	---	---	---	30
2-methoxyaniline	90-04-0	ND	---	---	---	30
4-aminoazobenzene	60-09-3	ND	---	---	---	30
<b>Conclusion</b>		PASS	---	---	---	



*Note:*

mg/kg = Milligrams per kilogram

LT = Less than

ND = Not detected (Reporting Limit = 5 mg/kg)

*Remark:*

In the case of levels per amine component less than or equal to 30 mg/kg, according to the analysis as carried out, azo colorants which can release one or more of certain listed amines by cleavage of their azo group/s were not detected in the commodity submitted.



**DETAILED RESULTS:**

**Regulation (EC) No. 1907/2006 REACH Annex XVII, Item 27 Nickel Release**

Test Method: EN 1811:2011+A1:2015<sup>1</sup> and EN 12472:2005+A1:2009<sup>2</sup>  
 Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Direct and Prolonged Contact with Skin

Specimen No.	3	---	---	---	<b>Limit</b>
Size of Tested Sample Area (cm <sup>2</sup> )	20	---	---	---	
Volume of Test solution Used (mL)	20	---	---	---	
Nickel Trial 1 (µg/cm <sup>2</sup> /week)	ND	---	---	---	<b>0.5*</b>
Nickel Trial 2 (µg/cm <sup>2</sup> /week)	ND	---	---	---	
<b>Conclusion</b>	PASS	---	---	---	

*Note:*

cm<sup>2</sup> = Square centimeters  
 µg/cm<sup>2</sup>/week = Micrograms per square centimeter per week  
 mL = Millilitres  
 LT = Less than  
 ND = Not detected (Reporting Limit = 0.1 µg/cm<sup>2</sup>/week)

*Remark:*

\*Because of the combined measurement uncertainty, an article is:  
 Compliant when the nickel release value is less than 0.88 µg/cm<sup>2</sup>/week;  
 Non-compliant when the nickel release value is greater than or equal to 0.88 µg/cm<sup>2</sup>/week.



**DETAILED RESULTS:**

**EN 71-1:2014+A1:2018 Safety of toys - Part 1: Mechanical and physical properties**

Clause	Test	Conclusion
4.1	Material cleanliness	PASS
4.7	Edges	PASS
4.8	Points and metallic wires	PASS
7	Warnings, markings and instructions for use	
7.1	General	PASS
7.2	Toys not intended for children under 36 months	PASS

**EN71-2:2011+A1:2014 Safety of toys - Part 2: Flammability**

Test	Observation	Conclusion
4.1 General	No visual signs of Cellulose Nitrate.	PASS



**SPECIMEN DESCRIPTION:**

Specimen No.	Specimen Description	Location
1	Beige textile	Bag
2	Light yellow textile	Rope
3	Silvery metal	Triangle brainteasers





**\*SAMPLE PHOTO:**



-End Report-

