

Test Report

Number: SHAH01069599

Applicant: Mid Ocean Brands B.V.
7/F, KINGS TOWER, 111 KING LAM STREET,
CHEUNG SHA WAN, KOWLOON, HONGKONG
Attn: DEREK

Date: 13 Mar, 2019

Sample Description:

Four (4) sets of submitted sample said to be :
Item Name : **WOODEN STAR PUZZLE IN COTTON POUCH.**
Item No. : **MO8931.**
Quantity Of Submitted Sample : 4 sets.
Packaging Provided By Applicant : Yes.
Labelled Age Group : Not specified.
Supplier : 112585.
Goods Exported To : Europe.
Country Of Origin : China.

Tests Conducted:

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

Conclusion:

Tested Samples	Standard	Result
Submitted Sample	EN71-1: 2014+ A1: 2018 for Mechanical And Physical Properties	Pass
	EN71-2: 2011+A1: 2014 Flammability Test	Pass
Tested components of submitted sample	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
	benzene content requirement in ANNEX XVII item 5 of the REACH Regulation(EC) NO.1907/2006 & amendment NO.552/2009 (formerly known as directive 82/806/EEC)	Pass
	Azocolourants Content Requirement In Annex XVII Item 43 Of The REACH Regulation (EC) NO. 1907/2006 & Amendment No. 552/2009 and 126/2013 (Formerly Known As Directive 2002/61/EC)	Pass
	Client's requirement on formaldehyde release content	Pass
	Colour Fastness To Rubbing	Pass

To be continued

Authorized By:



Young Zhu
Vice President



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Tests Conducted

1 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 3 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	
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



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

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

Date Sample Received: 05 Mar, 2019

Testing Period: 05 Mar, 2019 To 06 Mar, 2019

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Tests Conducted

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	
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

Date Sample Received: 05 Mar, 2019

Testing Period: 05 Mar, 2019 To 06 Mar, 2019

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Tests Conducted

3 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 (III): Scraped-off toy material

Element	Result (mg/kg)			Limit (mg/kg)
	(1)	(2)	(3)	
Aluminium (Al)	< 300	< 300	< 300	70000
Antimony (Sb)	< 10	< 10	< 10	560
Arsenic (As)	< 10	< 10	< 10	47
Barium (Ba)	< 10	< 10	< 10	18750
Boron (B)	< 50	< 50	74	15000
Cadmium (Cd)	< 5	< 5	< 5	17
Chromium (III) (Cr III) **	< 10	< 10	< 10	460
Chromium (VI) (Cr VI) **	< 0.025	< 0.025	< 0.025	0.2/0.053◎
Cobalt (Co)	< 10	< 10	< 10	130
Copper (Cu)	< 10	< 10	< 10	7700
Lead (Pb)	< 10	< 10	< 10	23
Manganese (Mn)	< 10	< 10	14	15000
Mercury (Hg)	< 10	< 10	< 10	94
Nickel (Ni)	< 10	< 10	< 10	930
Selenium (Se)	< 10	< 10	< 10	460
Strontium (Sr)	< 100	< 100	< 100	56000
Tin (Sn)	< 10	< 10	< 10	180000
Organic tin **	< 3.0	< 3.0	< 3.0	12
Zinc (Zn)	< 100	< 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.

◎ = 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.

Tested Component(s): See component list in the last section of this report.

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(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).

Date Sample Received: 05 Mar, 2019

Testing Period: 05 Mar, 2019 To 07 Mar, 2019

4 Benzene Content

By Head Space Gas Chromatographic - Mass Spectrometric (HS GC-MS) analysis.

<u>Tested Component</u>	<u>Result (ppm)</u>	<u>Requirement (ppm)</u>
(3)	ND	5 (MAX.)

Remark: Detection Limit = 0.5ppm

ppm = Parts per million = mg/kg

ND = Not Detected

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

This Test Was Conducted By Intertek Testing Services Ltd., Shanghai.

Date Sample Received: 05 Mar, 2019

Testing Period: 05 Mar, 2019 To 12 Mar, 2019

***Test item is tested in Intertek CNAS L0139.**

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5 Detection Of Amines Derived From Azocolourants and Azodyes:

By Gas Chromatographic - Mass Spectrometric (GC-MS) And High Performance Liquid Chromatographic (HPLC) Analysis.

Test Method:	EN 14362-1: 2012 for Textile Material EN ISO 17234-1: 2010 for Leather Material EN 14362-3: 2012 & EN ISO 17234-2: 2011 for p-Aminoazobenzene
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Forbidden		Cas No.	Result
			(1)
1.	4-Aminodiphenyl	92-67-1	N
2.	Benzidine	92-87-5	N
3.	4-Chloro-o-Toluidine	95-69-2	N
4.	2-Naphthylamine	91-59-8	N
5.	o-Aminoazotoluene	97-56-3	N
6.	2-Amino-4-Nitrotoluene	99-55-8	N
7.	p-Chloroaniline	106-47-8	N
8.	2,4-Diaminoanisole	615-05-4	N
9.	4,4'-Diaminodiphenylmethane	101-77-9	N
10.	3,3'-Dichlorobenzidine	91-94-1	N
11.	3,3'-Dimethoxybenzidine	119-90-4	N
12.	3,3'-Dimethylbenzidine	119-93-7	N
13.	3,3'-Dimethyl-4,4'diaminodiphenylmethane	838-88-0	N
14.	p-Cresidine	120-71-8	N
15.	4,4'-Methylene-Bis(2-Chloroaniline)	101-14-4	N
16.	4,4'-Oxydianiline	101-80-4	N
17.	4,4'-Thiodianiline	139-65-1	N
18.	o-Toluidine	95-53-4	N
19.	2,4-Toluylenediamine	95-80-7	N
20.	2,4,5-Trimethylaniline	137-17-7	N
21.	o-Anisidine	90-04-0	N
22.	p-Aminoazobenzene	60-09-3	N

Remark: N = Not Detected
Detection Limit = 5 ppm
Requirement = 30 ppm (Max.)
ppm = Parts per million = mg/kg

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

Date Sample Received: 05 Mar, 2019

Testing Period: 05 Mar, 2019 To 07 Mar, 2019

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6 Formaldehyde Release Content

As per test method EN 717-3:1996, formaldehyde release content was determined by UV-Visible Spectrophotometer(UV-Vis) analysis.

<u>Tested Component</u>	<u>Moisture Content(%)</u>	<u>Result (mg/kg)</u>	<u>Client's Requirement (mg/kg)</u>
(1)	3	ND	-

Remark: ND = Not Detected

Detection Limit = 5 mg/kg (based on dry weight)

* = Exceeded Item

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

Date Sample Received: 05 Mar, 2019

Testing Period: 05 Mar, 2019 To 08 Mar, 2019

7 Colour Fastness To Rubbing (ISO 105 X12-2016):

(4)	<u>All Portions</u>	<u>Applicant's Requirement</u>
Dry	4-5	2-3
Wet	4-5	2-3

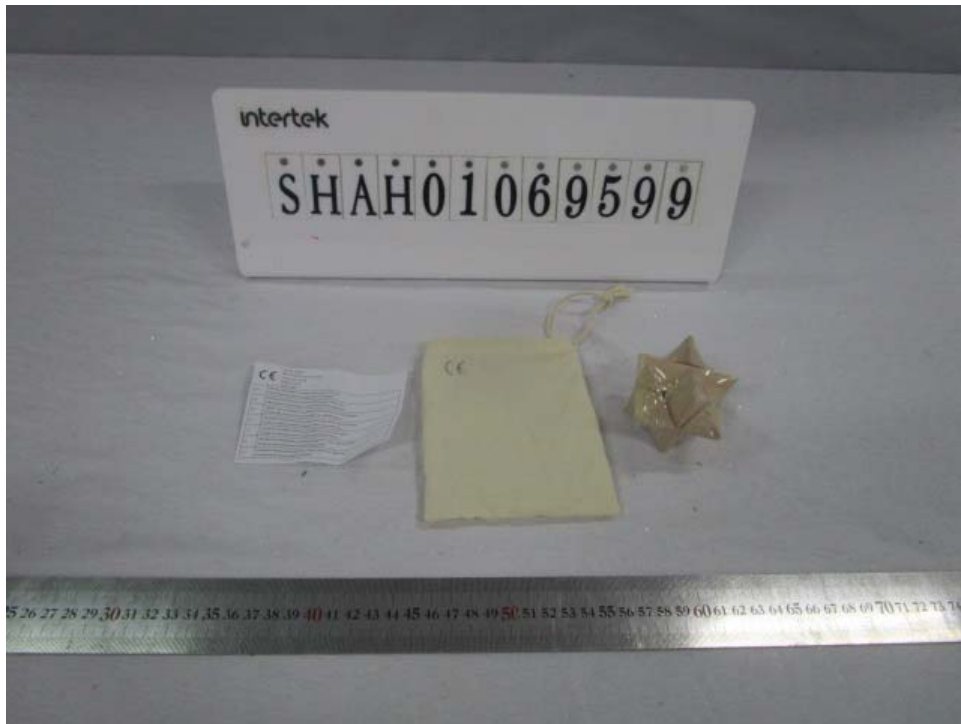
To be continued



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Tests Conducted



Components:

- (1) Beige fabric bag.(body)
- (2) Beige rope.
- (3) Nature wood.
- (4) Cream Woven Pouch

End of report

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