



# **TEST REPORT**

Reference No	:	WTF18F11129137C
		, (), (A)

Applicant .....: Mid Ocean Brands B.V.

Address ...... : 7/F., Kings Tower, 111 King Lam Street, Cheung Sha Wan, Kowloon,

Hong Kong

Manufacturer.....: 114103

Sample Name.....: Transparent badge

Model No. ..... : MO9642

**Test Requested**.....: 1) Determination of specified Phthalates content according to Annex XVII Items 51 & 52 of the REACH Regulation (EC) No. 1907/2006

& Amendment No. 552/2009

2) Determination of Lead content in the submitted sample in accordance with REACH regulation Annex XVII Entries 63 (EC) No. 1907/2006 and the amendment No. 836/2012 and (EU) 2015/628

3) Determination of Cadmium content in the submitted sample in accordance with REACH regulation Annex XVII Entries 23 (EC) No. 1907/2006 and the amendment No. 552/2009, No. 494/2011, No.

835/2012 and (EU) 2016/217

4) Nickel content requirement in Annex XVII Item 27 of the REACH Regulation (EC) No. 1907/2006 & amendment No.552/2009

(formerly known as Directive 94/27/EC and 2004/96/EC)

Test Method ...... : Please refer to next page (s)

Test Conclusion ...... Please refer to next page (s)

Date of Receipt sample..... : 2018-11-15

Date of Test..... : 2018-11-15 to 2018-11-27

**Date of Issue** ..... : 2018-11-27

Test Result .....: Please refer to next page (s)

#### Remarks:

The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of reporter and reviewer.

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#### **Test Result:**

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## 1) Phthalates

Test Method: With reference to EN14372:2004, by Gas Chromatographic-Mass Spectrometric (GC-MS) analysis.

Test Items	BBP	DBP	DEHP	DIDP	DINP	DNOP	TEX NITER ON
MDL (%)	0.005	0.005	0.005	0.01	0.01	0.005	70, -
Limit (%)	sum of th	ree phthala	ates < 0.1	sum of th	ree phthala	tes < 0.1	ik white white
Specimen No.	Result (%)					Conclusion	
No.1	ND	ND	ND OF	ND	0.057	ND	Pass

#### Note:

DBP= Dibutyl phthalate

BBP= Benzyl butyl phthalate

DEHP= Bis-(2-ethylhexyl)- phthalate

DIDP= Di-isodecyl phthalate

DIDP= Di-isodecyl phthalate

- (1) % = percentage by weight
- (2) ND = Not detected or Less than the method detection limit
- (3) MDL=Method Detection Limit
- (4) "<" = less than
- (5) The above limit was quoted according to Annex XVII Items 51 & 52 of the REACH Regulation (EC) No. 1907/2006 & Amendment No. 552/2009(formerly known as Directive 2005/84/EC) for phthalate content in toys and child care articles.

## 2) Lead (Pb)

Test Method: With reference to IEC 62321-5:2013, the analysis was performed by ICP-OES.

Tool Hom	MDL		Limit		
Test Item	(mg/kg)	No.1	No.2	No.3	(mg/kg)
Lead(Pb)	2	ND	ND ND	WND W	500
Conclusion	MUT MUT	Pass	Pass	Pass	NITEK NITER

Tan Hamilton Mile	MDL	MDL Results (mg/kg)				
Test Item	(mg/kg)	No.4	No.5	No.6	(mg/kg)	
Lead(Pb)	2	ND	ND	ND ND	500	
Conclusion	et zet .	Pass	Pass	Pass		

## Note:

- (1) mg/kg = milligram per kilogram
- (2) ND = Not Detected (lower than MDL)
- (3) MDL = Method Detection Limit
- (4) Limit of Lead was quoted from REACH regulation Annex XVII Item 63 (EC) No. 1907/2006 and the amendment No. 836/2012 and (EU) 2015/628.

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# 3) Cadmium (Cd)

Test Method: With reference to IEC 62321-5:2013, the analysis was performed by ICP-OES.

Test Item	MDL unit ult	Results (mg/kg)
	(mg/kg)	No.1 will will will
Cadmium(Cd)	2 (1)	ND ND
Conclusion	at let let let	Pass We will will

#### Note:

- (1) mg/kg = milligram per kilogram
- (2) ND = Not Detected (lower than MDL)
- (3) MDL = Method Detection Limit
- (4) Limit of Cadmium according to REACH regulation Annex XVII Item 23 (EC) No. 1907/2006 and the amendment No. 552/2009, No. 494/2011 and No. 835/2012 and (EU) 2016/217.

Category	Limit (mg/kg)
Wet paint	100
Surface coating	1000
Plastic	100
Metal parts of jewellery and hair accessories	100

## 4) Nickel release

Test method: With reference BS EN1811: 2011+A1:2015, Nickel content was determined by Inductively Coupled Argon Plasma Spectrometry

Item No.	Sample Area (cm²)	Volume of Test					
Area (cm ) Solut	Solution(ml)	Trial 1	Trial 2	Trial 3	Average	in with m	
No.2	6.17	10	MND W	ND	ND	ND	Pass

## Note:

- (1) μg/cm²/week = microgram per square centimetre per week
- (2) Method Detection limit = 0.05 μg/cm<sup>2</sup>/week
- (3) ND = Not detected or less than the value of Method Detection Limit
- (4) Interpretation of test results:

with mut and any and	Nickel Release(μg/cm²/week)				
Type of sample	Pass	ALTER MI Fail MILLER MA			
Other components in direct and prolonged contact with the skin	<0.88	≥0.88			
Post assemblies and body piercings (Post assemblies which are inserted into pierced parts of the human body)	<0.35 (** m.ť	≥0.35 unitile			

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# **Test Specimen Description:**

No.1: Transparent PVC badge No.2: Silvery metal clip

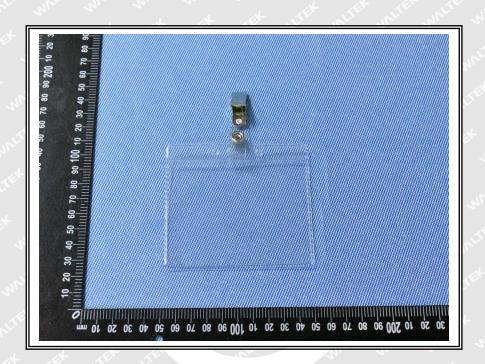
No.3: Silvery metal button

No.4: Silvery metal rivet

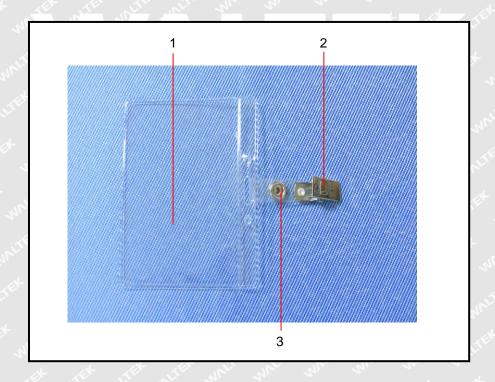
No.5: Silvery metal axle

No.6: Silvery metal spring

# Sample photo:



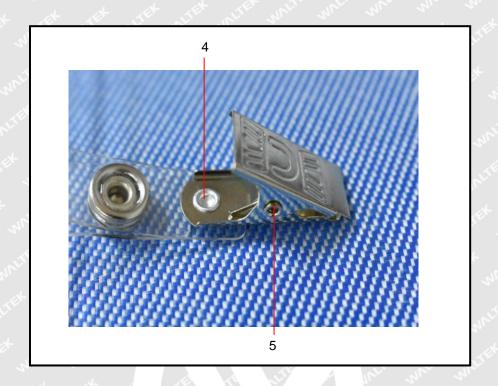
# Photographs of parts tested:

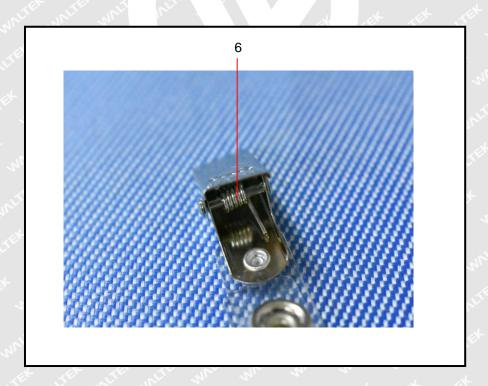


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===== End of Report =====