



中国认可  
国际互认  
检测  
TESTING  
CNAS L6478



# TEST REPORT

**Reference No.** ..... : WTF17F1298698C

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

**Address** ..... : Unit 201 2/F., Laford Centre, 838 Lai Chi Kok Road, Cheung Sha Wan, Kowloon, Hong Kong.

**Manufacturer** ..... : 114966

**Sample Name** ..... : Key Chain

**Model No.** ..... : MK 2012, MK 2003, MK 2004, MK 4005, MK 2001, MK2002, MK2005, MK2006, MK2007, MK2008, MK2009, MK2010, MK2011, MK4001~MK4004, MK3001, MK3002

**Test Requested** ..... : 1) Determine the specified AZO Colorants contents in the submitted sample in according to the Entries 43 in Annex XVII of the REACH Regulation (EC) No.1907/2006 and the Amendment Regulation (EC) No.552/ 2009 & No.126/ 2013 (previously restricted under Directive 2002/61/EC).  
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

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

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

**Date of Receipt sample** ..... : 2017-12-20

**Date of Test** ..... : 2017-12-20 to 2017-12-23

**Date of Issue** ..... : 2017-12-27

**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:****1) AZO**

Test Method: With reference to BS EN 14362-1: 2012 and BS EN 14362-3: 2012, analysis was performed by Gas Chromatographic Mass Spectrometry (GC-MS)

No.	Amines Substances	CAS No.	Limit (mg/kg)	Result (mg/kg)		
				No.2	No.3	
1	4-Aminobiphenyl	92-67-1	30	ND	ND	
2	Benzidine	92-87-5	30	ND	ND	
3	4-chloro-o-Toluidine	95-69-2	30	ND	ND	
4	2-Naphthylamine	91-59-8	30	ND	ND	
5	o-Aminoazotoluene	97-56-3	30	ND	ND	
6	2-Amino-4-nitrotoluene	99-55-8	30	ND	ND	
7	p-Chloroaniline	106-47-8	30	ND	ND	
8	2,4-diaminoanisol	615-05-4	30	ND	ND	
9	4,4'-Diaminodiphenylmethane	101-77-9	30	ND	ND	
10	3,3'-Dichlorobenzidine	91-94-1	30	ND	ND	
11	3,3'-Dimethoxybenzidine	119-90-4	30	ND	ND	
12	3,3'-Dimethylbenzidine	119-93-7	30	ND	ND	
13	3,3'-Dimethyl-4,4'-diaminodiphenylmethane	838-88-0	30	ND	ND	
14	p-cresinin	120-71-8	30	ND	ND	
15	4,4'-Methylen-bis-(2-chloroaniline)	101-14-4	30	ND	ND	
16	4,4'-Oxydianiline	101-80-4	30	ND	ND	
17	4,4'-Thiodianiline	139-65-1	30	ND	ND	
18	o-Toluidine	95-53-4	30	ND	ND	
19	2,4-Toluylendiamine	95-80-7	30	ND	ND	
20	2,4,5 – Trimethylaniline	137-17-7	30	ND	ND	
21	o-anisidine	90-04-0	30	ND	ND	
22	4-aminoazobenzene	60-09-3	30	ND	ND	
23	2,4-Xylidin	95-68-1	30	ND	ND	
24	2,6-Xylidin	87-62-7	30	ND	ND	
<b>Conclusion</b>			--	--	<b>Pass</b>	<b>Pass</b>

**Note:**

- ND = Not detected or less than the method detection limit
- mg/kg=Milligram per kilogram
- Method Detection Limit (mg/kg): Each 5mg/kg
- The CAS-numbers 97-56-3 and 99-55-8 are further reduced to CAS-numbers 95-53-4 and 95-80-7.
- AZO colorants that are able to form 4-aminoazobenzene, generate under the condition of this method aniline and 1,4-phenylenediamine. The presence of these colorants cannot be reliably ascertained without additional information, e.g. the chemical structure of the colorant used.
- The CAS-numbers 95-68-1 and 87-62-7 are not proscribed under REACH Regulation (EC) No 1907/2006



## 2) Lead (Pb)

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

Test Item	MDL (mg/kg)	Results (mg/kg)		Limit (mg/kg)
		No.1	No.4	
Lead(Pb)	2	ND	ND	500
<b>Conclusion</b>	--	<b>Pass</b>	<b>Pass</b>	--

Test Item	MDL (mg/kg)	Results (mg/kg)		Limit (mg/kg)
		No.5	No.6	
Lead(Pb)	2	ND	ND	500
<b>Conclusion</b>	--	<b>Pass</b>	<b>Pass</b>	--

Test Item	MDL (mg/kg)	Results (mg/kg)		Limit (mg/kg)
		No.7	No.8	
Lead(Pb)	2	ND	ND	500
<b>Conclusion</b>	--	<b>Pass</b>	<b>Pass</b>	--

Test Item	MDL (mg/kg)	Results (mg/kg)			Limit (mg/kg)
		No.9	No.10	No.11	
Lead(Pb)	2	ND	ND	ND	500
<b>Conclusion</b>	--	<b>Pass</b>	<b>Pass</b>	<b>Pass</b>	--

### 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.



### 3) Cadmium (Cd)

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

Test Item	MDL (mg/kg)	Results (mg/kg)	
		No.6	No.12
Cadmium(Cd)	2	ND	ND
<b>Conclusion</b>	--	<b>Pass</b>	<b>Pass</b>

#### 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

#### Test Specimen Description:

- No.1: Silvery metal ring
- No.2: Pink sewing thread
- No.3: Pink fabric
- No.4: Silvery metal rivet
- No.5: Silvery metal brand with multicolour printing
- No.6: Multicolour plastic brand
- No.7: Golden metal brand with multicolour printing
- No.8: Silvery metal brand with multicolour printing
- No.9: Golden metal brand
- No.10: Silvery metal brand
- No.11: Silvery metal brand with multicolour printing
- No.12: Transparent soft plastic sheet



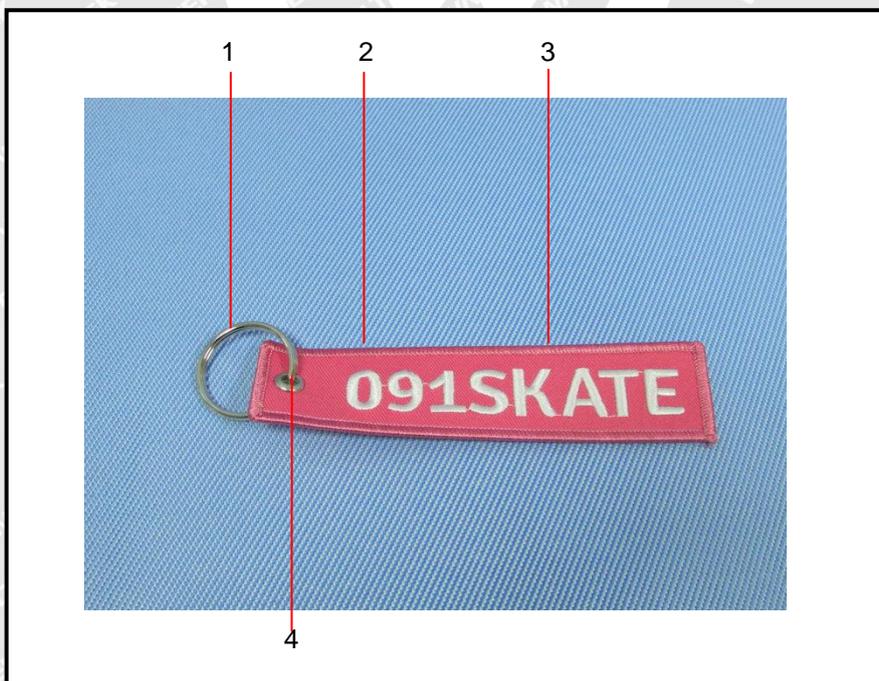
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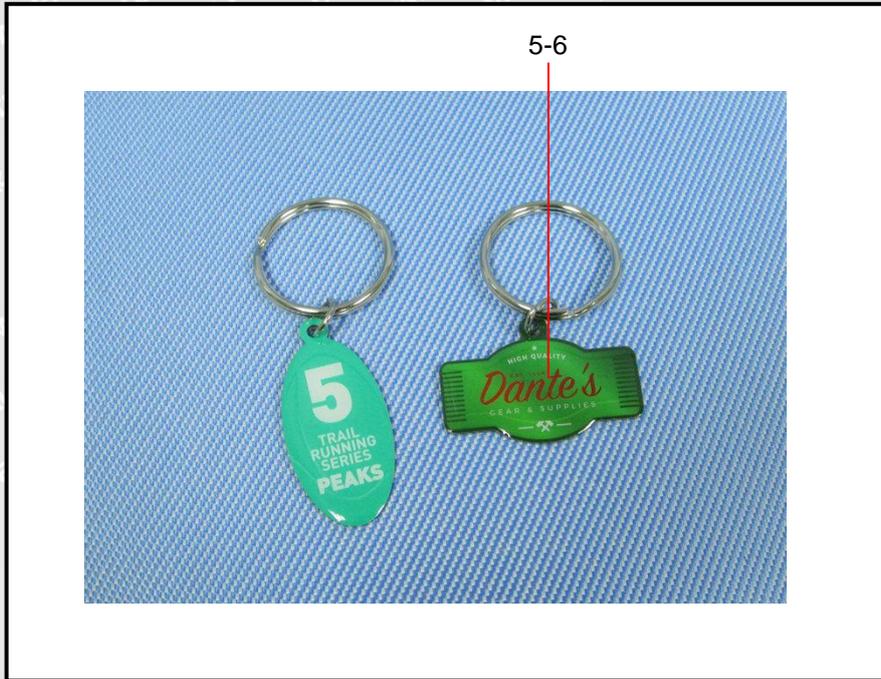




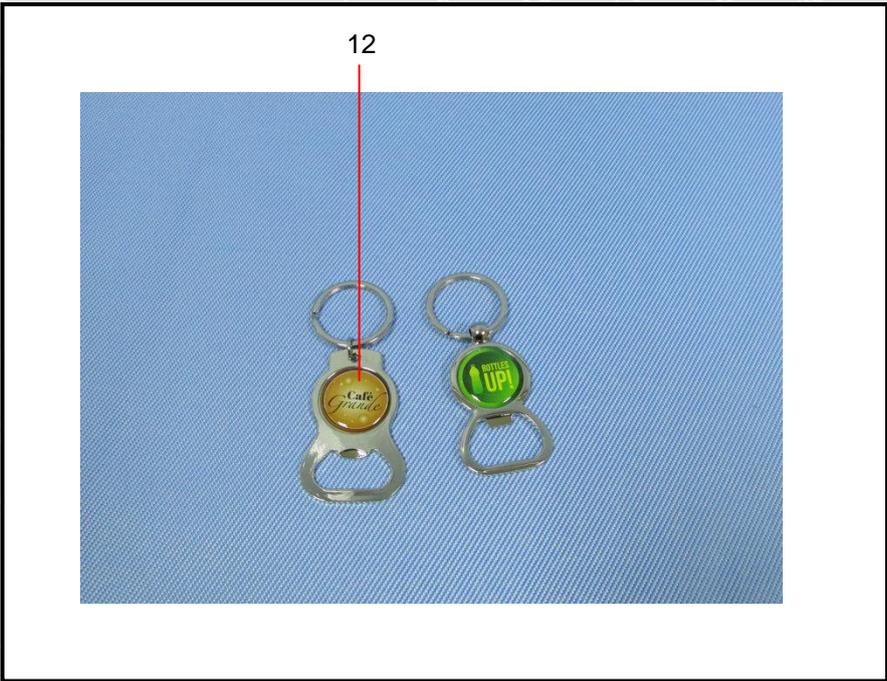


Photographs of parts tested:









==== End of Report ====

**WALTEK**