中国认可
国际互认
检测
TESTING
CNAS L6478

# TEST REPORT

| | | |
|---|---|---|
| **Reference No.** | : | WTF19F11076598A2C |
| **Applicant** | : | Mid Ocean Brands B.V. |
| **Address** | : | 7/F., Kings Tower, 111 King Lam Street, Cheung Sha Wan, Kowloon, Hong Kong |
| **Manufacturer** | : | 111901 |
| **Sample Name** | : | 6 piece stationary set |
| **Model No.** | : | MO9010 |
| **Test Requested** | : | 1) 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<br>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<br>3) 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).<br>4) As specified by client, determination of the free and hydrolysed formaldehyde content in submitted sample |
| **Test Method** | : | Please refer to next page (s) |
| **Test Conclusion** | : | Please refer to next page (s) |
| **Date of Receipt sample** | : | 2019-11-05 |
| **Date of Test** | : | 2019-11-05 to 2019-11-11 |
| **Date of Issue** | : | 2019-11-27 |
| **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 compiler and approver.
If the report is not stamped with the accreditation recognized seal, it will only be used for scientific research, education, and internal quality control activities, and is not used for the purpose of issuing supporting data to the society.

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Approved by: Swing Liang
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**Test Result:**

**1) 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.1 | No.4 | No.5 | No.8 | No.9 |
| Cadmium(Cd) | 2 | ND | ND | ND | ND | ND |
| **Conclusion** | -- | **Pass** | **Pass** | **Pass** | **Pass** | **Pass** |

| Test Item | MDL (mg/kg) | Results (mg/kg) | | | | |
|---|---|---|---|---|---|---|
| | | No.10 | No.11 | No.12 | No.13 | No.14 |
| Cadmium(Cd) | 2 | ND | ND | ND | ND | ND |
| **Conclusion** | -- | **Pass** | **Pass** | **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 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 |

**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.2 | No.3 | No.4 | |
| Lead(Pb) | 2 | 90 | ND | ND | ND | 500 |
| **Conclusion** | -- | **Pass** | **Pass** | **Pass** | **Pass** | -- |

| Test Item | MDL (mg/kg) | Results (mg/kg) | | | | Limit (mg/kg) |
|---|---|---|---|---|---|---|
| | | No.5 | No.6 | No.7 | No.8 | |
| Lead(Pb) | 2 | ND | ND | ND | ND | 500 |
| **Conclusion** | -- | **Pass** | **Pass** | **Pass** | **Pass** | -- |

| Test Item | MDL (mg/kg) | Results (mg/kg) | | | | Limit (mg/kg) |
|---|---|---|---|---|---|---|
| | | No.9 | No.10 | No.11 | No.12 | |
| Lead(Pb) | 2 | ND | ND | ND | ND | 500 |
| **Conclusion** | -- | **Pass** | **Pass** | **Pass** | **Pass** | -- |

| Test Item | MDL (mg/kg) | Results (mg/kg) | | | | Limit (mg/kg) |
|---|---|---|---|---|---|---|
| | | No.13 | No.14 | No.15 | No.16 | |
| Lead(Pb) | 2 | ND | ND | ND | ND | 500 |
| **Conclusion** | -- | **Pass** | **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.

**3) AZO**

Test Method: With reference to BS EN ISO 14362-1：2017 and BS EN ISO 14362-3：2017, analysis was performed by Gas Chromatographic Mass Spectrometry (GC-MS)

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

**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

**4) Formaldehyde**

Test Method: With reference to EN717-3:1996, analysis was performed by UV-VIS

| Test Item | Unit | Result | MDL | Client's Limit |
|---|---|---|---|---|
| | | No.8 | | |
| Formaldehyde ($CH_2O$) | mg/kg | ND | 10 | 80 |
| **Conclusion** | **--** | **Pass** | **--** | **--** |

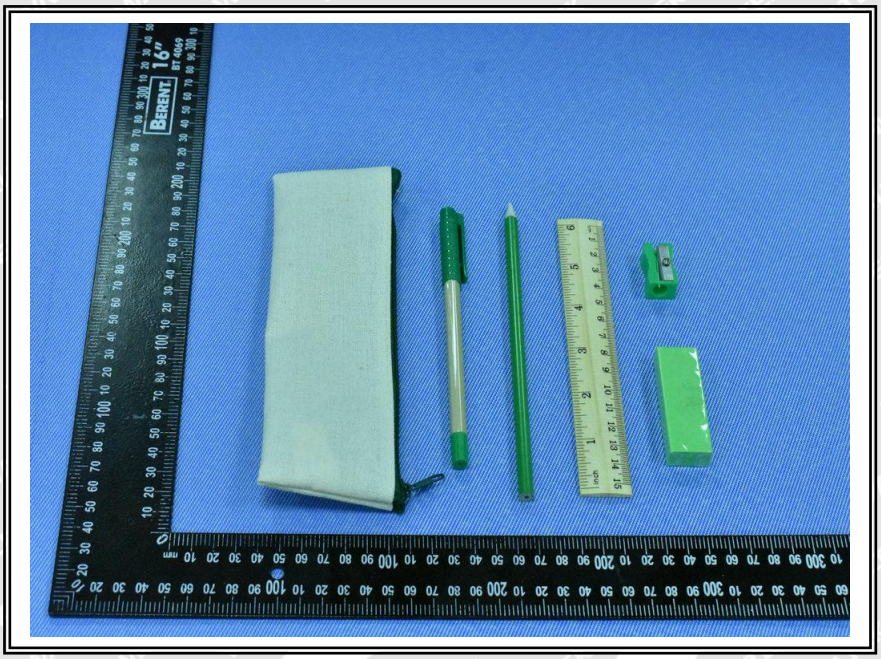
**Note:**

- ND = Not detected or less than the method detection limit
- mg/kg =milligram per kilogram=ppm
- MDL= Method Detection Limit

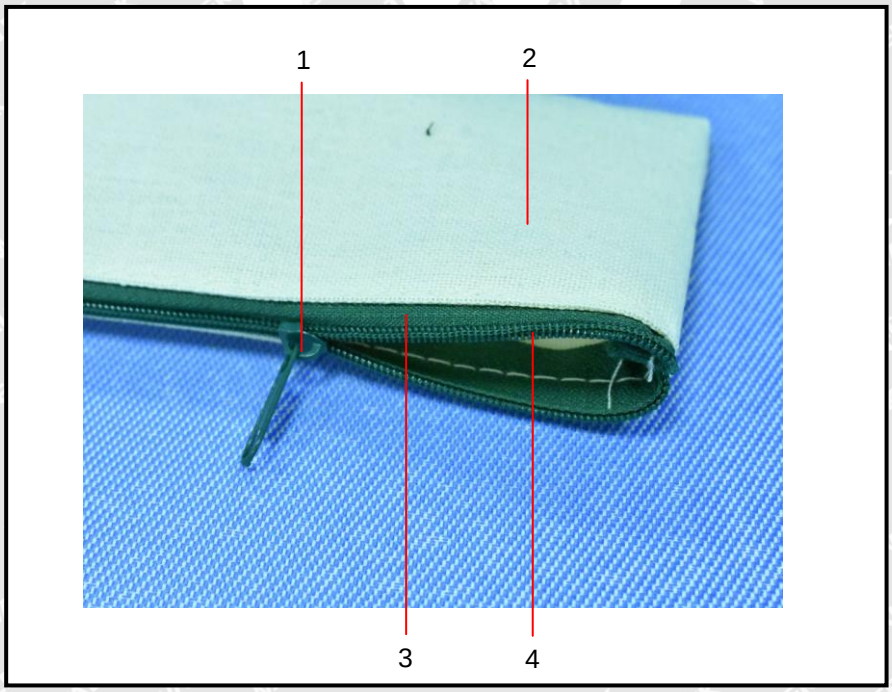
**Test Specimen Description:**

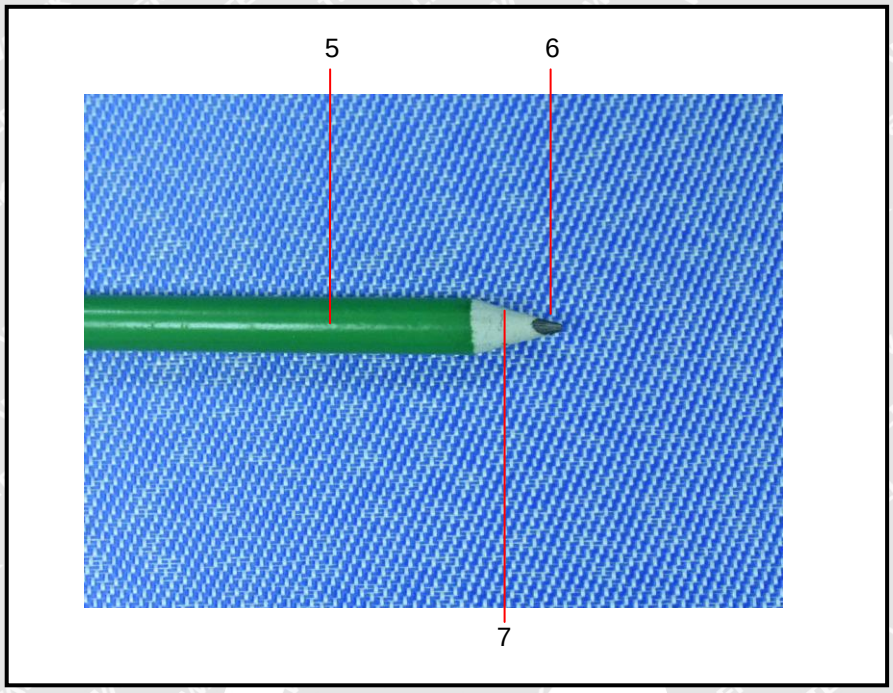
No.1: Silvery metal zipper head with green coating
No.2: Off-white main fabric
No.3: Green zipper fabric
No.4: Green plastic zipper tooth
No.5: Green coating
No.6: Black graphite
No.7: Off-white paper
No.8: Off-white wooden ruler with black printing
No.9: Green eraser
No.10: Blue ink
No.11: Transparent plastic refill
No.12: Green plastic cap
No.13: Off-white plastic barrel
No.14: Green plastic shell of pencil sharpener
No.15: Silvery metal blade of pencil sharpener
No.16: Silvery metal screw of pencil sharpener

**Sample photo:**




**Photographs of parts tested:**

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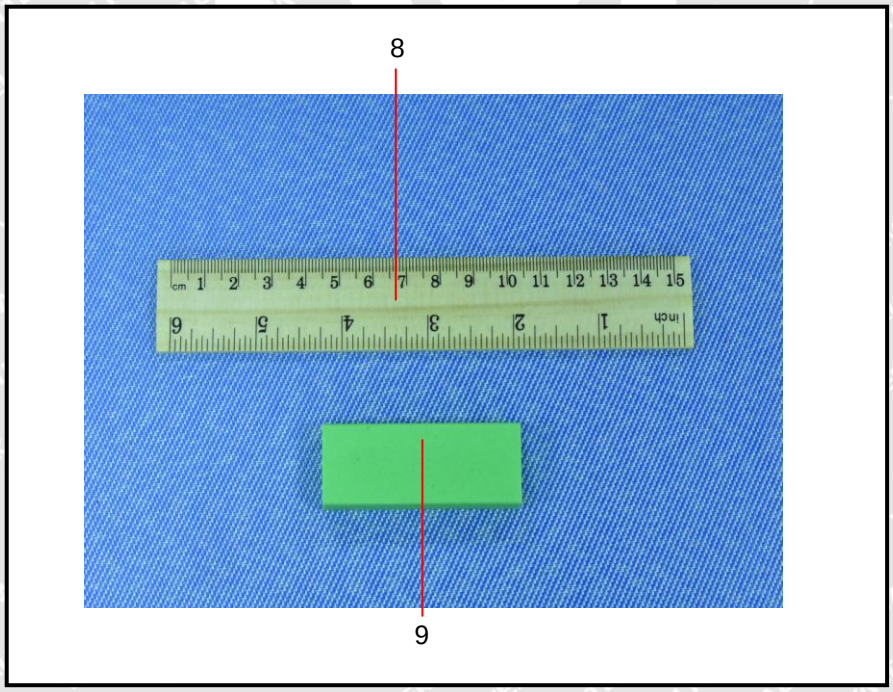
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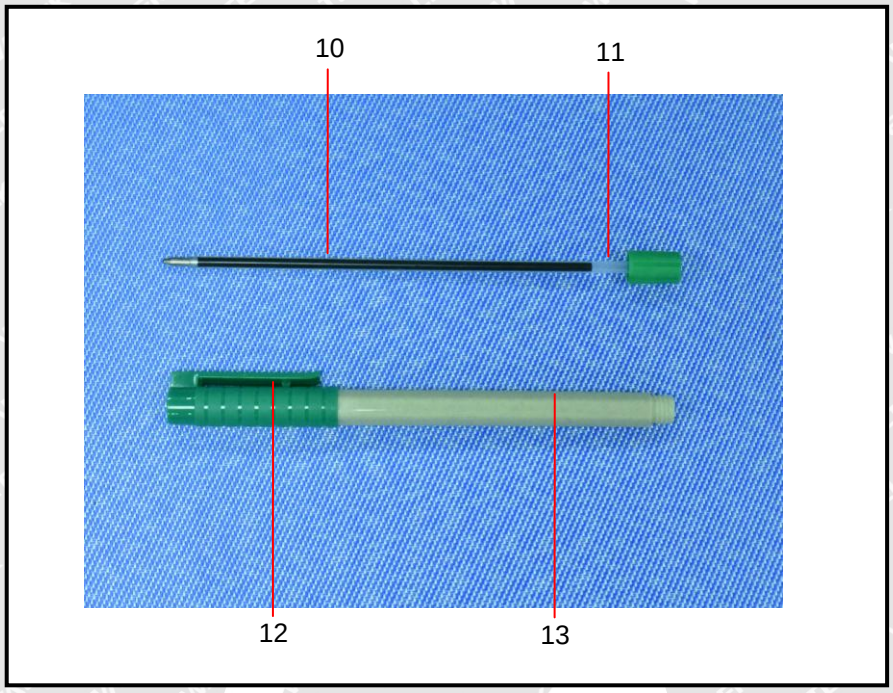


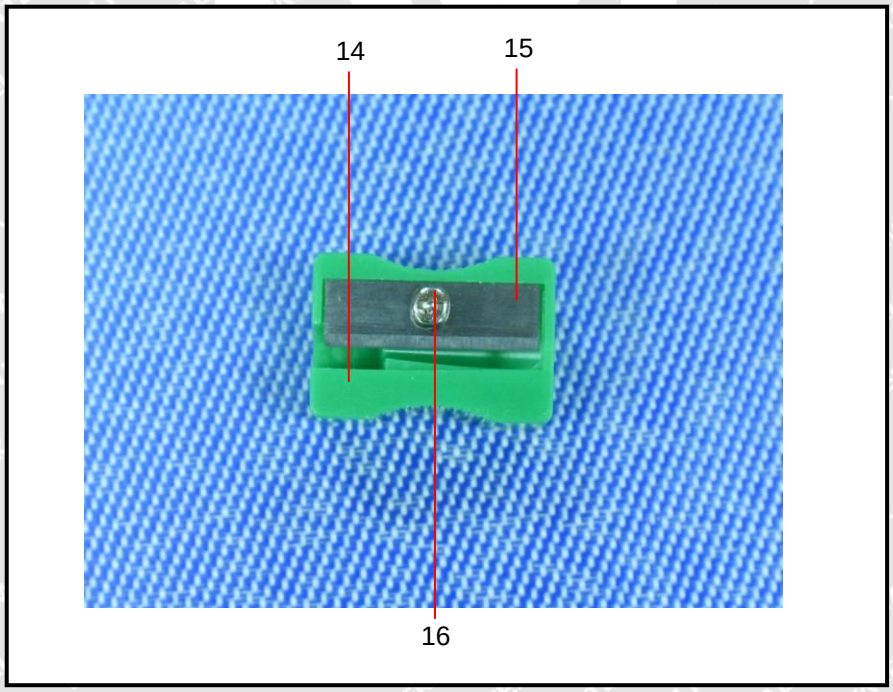


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