# TEST REPORT

| | | |
|---|---|---|
| **Report No.** | : | WTF22F12245024C |
| **Applicant** | : | Mid Ocean Brands B.V. |
| **Address** | : | 7/F., Kings Tower, 111 King Lam Street, Cheung Sha Wan, Kowloon, Hong Kong |
| **Manufacturer** | : | 111033 |
| **Sample Name** | : | A5 portfolio with powerbank, A4 portfolio with powerbank |
| **Sample Model** | : | MO9231, MO9232 |
| **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 & No. 2018/2005<br>2) 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>3) As requested by the applicant, to test Colour Fastness to Rubbing in the submitted sample. |
| **Test Conclusion** | : | Refer to next page (s) |
| **Date of Receipt sample** | : | 2023-02-15 |
| **Testing period** | : | 2023-02-15 to 2023-02-23 |
| **Date of Issue** | : | 2023-02-24 |
| **Test Result** | : | Refer to next page (s) |
| **Note** | : | As specified by client, only test the designated sample. |

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Signed for and on behalf of
Waltek Testing Group (Foshan) Co., Ltd.

Swing.Liang

**Sample photo:**

| | |
|---|---|
|  |  |
| **1. A4 portfolio with powerbankMO9232** | **1. A4 portfolio with powerbank MO9232** |
|  |  |
| **2. A5 portfolio with powerbank MO9231** | **2. A5 portfolio with powerbank MO9231** |

**Test Results:**

**1) Phthalates**

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

| Test Items | LOQ (%) | Results (%) | | | Limit (%) |
|---|---|---|---|---|---|
| | | No.26 | No.29 | No.31 | |
| Benzyl butyl phthalate (BBP) | 0.005 | ND | ND | ND | sum of four phthalates < 0.1 |
| Di (2-ethyl hexyl)- phthalate (DEHP) | 0.005 | ND | ND | ND | |
| Dibutyl phthalate (DBP) | 0.005 | ND | ND | ND | |
| Diisobutyl phthalate (DIBP) | 0.005 | ND | ND | ND | |
| Diisodecyl phthalate (DIDP) | 0.01 | ND | ND | ND | sum of three phthalates < 0.1 |
| Diisononyl phthalate (DINP) | 0.01 | ND | ND | ND | |
| Di-n-octyl phthalate (DNOP) | 0.005 | ND | ND | ND | |
| **Conclusion** | -- | **Pass** | **Pass** | **Pass** | -- |

**Note:**

DBP= Dibutyl phthalate BBP= Benzyl butyl phthalate DEHP= Bis-(2-ethylhexyl)- phthalate
DINP= Di-isononyl phthalate DNOP= Di-n-octyl phthalate DIDP= Di-isodecyl phthalate
DIBP= Diisobutyl phthalate

(1) % = percentage by weight
(2) ND = Not Detected or lower than limit of quantitation
(3) LOQ = Limit of quantitation
(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 & No. 2018/2005 (formerly known as Directive 2005/84/EC) for phthalate content in toys and child care articles.

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**2) 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.24 | No.27 | No.29 |
| 1 | 4-Aminobiphenyl | 92-67-1 | 30 | ND | ND | ND |
| 2 | Benzidine | 92-87-5 | 30 | ND | ND | ND |
| 3 | 4-chloro-o-Toluidine | 95-69-2 | 30 | ND | ND | ND |
| 4 | 2-Naphthylamine | 91-59-8 | 30 | ND | ND | ND |
| 5 | o-Aminoazotoluene | 97-56-3 | 30 | ND | ND | ND |
| 6 | 2-Amino-4-nitrotoluene | 99-55-8 | 30 | ND | ND | ND |
| 7 | p-Chloroaniline | 106-47-8 | 30 | ND | ND | ND |
| 8 | 2,4-diaminoanisol | 615-05-4 | 30 | ND | ND | ND |
| 9 | 4,4’-Diaminodiphenylmethane | 101-77-9 | 30 | ND | ND | ND |
| 10 | 3,3’-Dichlorobenzidine | 91-94-1 | 30 | ND | ND | ND |
| 11 | 3,3’-Dimethoxybenzidine | 119-90-4 | 30 | ND | ND | ND |
| 12 | 3,3’-Dimethylbenzidine | 119-93-7 | 30 | ND | ND | ND |
| 13 | 3,3’-Dimethyl-4,4’-diaminodiphenylmethane | 838-88-0 | 30 | ND | ND | ND |
| 14 | p-cresinin | 120-71-8 | 30 | ND | ND | ND |
| 15 | 4,4’-Methylen-bis-(2-chloroaniline) | 101-14-4 | 30 | ND | ND | ND |
| 16 | 4,4’-Oxydianiline | 101-80-4 | 30 | ND | ND | ND |
| 17 | 4,4’-Thiodianiline | 139-65-1 | 30 | ND | ND | ND |
| 18 | o-Toluidine | 95-53-4 | 30 | ND | ND | ND |
| 19 | 2,4-Toluylendiamine | 95-80-7 | 30 | ND | ND | ND |
| 20 | 2,4,5 – Trimethylaniline | 137-17-7 | 30 | ND | ND | ND |
| 21 | o-anisidine | 90-04-0 | 30 | ND | ND | ND |
| 22 | 4-aminoazobenzene | 60-09-3 | 30 | ND | ND | ND |
| 23 | 2,4-Xylidin | 95-68-1 | 30 | ND | ND | ND |
| 24 | 2,6-Xylidin | 87-62-7 | 30 | ND | ND | ND |
| **Conclusion** | | -- | -- | **Pass** | **Pass** | **Pass** |

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| No. | Amines Substances | CAS No. | Limit (mg/kg) | Result (mg/kg) | |
|---|---|---|---|---|---|
| | | | | No.30 | No.32 |
| 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 |
| **Conclusion** | | -- | -- | **Pass** | **Pass** |

**Note:**

- ND = Not Detected or lower than limit of quantitation
- mg/kg=Milligram per kilogram
- Limit of quantitation (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

**3) Colour Fastness to Rubbing**

| **Colour Fastness to Rubbing** | | | | |
|---|---|---|---|---|
| (ISO 105-X12: 2016; Size of rubbing finger: 16mm diameter.) | | | | |
| | | **No.24** | **No.30** | **Client's Limit** |
| Length | Dry staining | 4-5 | 4-5 | 2-3 |
| | Wet staining | 4-5 | 4-5 | 2-3 |
| Width | Dry staining | -- | -- | 2-3 |
| | Wet staining | -- | -- | 2-3 |
| **Conclusion** | | **Pass** | **Pass** | -- |

**Note:**

(1) Grey Scale Rating is based on the 5-step scale of 1 to 5, where 1 is bad and 5 is good.

**Description for Specimen:**

| Specimen No. | Specimen Description |
|---|---|
| 24 | Black main fabric |
| 26 | Black plastic hook(Velcro) |
| 27 | Black fabric loop(Velcro) |
| 29 | Black synthetic leather |
| 30 | Black elastic band |
| 31 | Transparent plastic sheet |
| 32 | Black lining |

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**Photograph of parts tested:**




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Remarks:

1. The results shown in this test report refer only to the sample(s) tested;
2. This test report cannot be reproduced, except in full, without prior written permission of the company;
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6. The sample material information (Model No. information) is provided by client, not verified by test laboratory. The samples of reference Model No. are not tested. Test laboratory not responsible for the accuracy, appropriateness, completeness and authenticity of the information provided by client.

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

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