



# **TEST REPORT**

| Reference No | WTF19F11080931A3C        |
|--------------|--------------------------|
| Annlicant    | <br>Mid Ocean Brands B V |

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

Hong Kong

Manufacturer.....: 104438

Sample Name.....: Sewing kit in aluminium box

Model No. ..... : MO8977

**Test Requested**.....: 1) 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

2) 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

3) 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

4) 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).

Date of Receipt sample..... : 2019-11-21 & 2019-12-06 & 2019-12-18 & 2019-12-25

Date of Test ...... 2019-11-21 to 2019-12-30

Date of Issue ..... : 2019-12-31

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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Compiled by:

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\* WALTER Thing Lib

eved by:

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### **Test Result:**

## 1) Lead (Pb)

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

| + MDL      |            | Results (mg/kg) |      |                |         |
|------------|------------|-----------------|------|----------------|---------|
| Test Item  | (mg/kg) No | No.1            | No.2 | No.3+No.4+No.5 | (mg/kg) |
| Lead(Pb)   | 2          | ND NO           | ND   | 73*            | 500     |
| Conclusion | 111 - 111  | Pass            | Pass | Pass           | CHUL    |

| Test Item  | MDL       | Results (mg/kg) |           |                   |         |
|------------|-----------|-----------------|-----------|-------------------|---------|
|            | (mg/kg)   | No.6+No.7       | No.8+No.9 | No.10+No.11+No.12 | (mg/kg) |
| Lead(Pb)   | 2         | ND*             | ND*       | ND*               | 500     |
| Conclusion | 11 11 (1) | Pass            | Pass      | Pass              | 1EX- 1  |

| Test Item  | MDL     | Results | (mg/kg) | Limit   |
|------------|---------|---------|---------|---------|
|            | (mg/kg) | No.13   | No.14   | (mg/kg) |
| Lead(Pb)   | 2 00    | 148     | ND      | 500     |
| Conclusion | 10, 10  | Pass    | Pass    | MUL A   |

| Test Item  | MDL       | Results (         | mg/kg)      | Limit   |
|------------|-----------|-------------------|-------------|---------|
|            | (mg/kg)   | No.15+No.16+No.17 | No.18+No.19 | (mg/kg) |
| Lead(Pb)   | 2         | ND*               | ND*         | 500     |
| Conclusion | TEX- NITE | Pass              | Pass        | - TEX   |

## 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.
- (5) "\*" = Results are calculated by the minimum weight of mixed components.

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## 2) Cadmium (Cd)

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

| All washing alies | MDL     | Results (mg/kg) |             |  |  |
|-------------------|---------|-----------------|-------------|--|--|
| Test Item         | (mg/kg) | No.3+No.4+No.5  | No.13+No.14 |  |  |
| Cadmium(Cd)       | 2       | ND*             | ND*         |  |  |
| Conclusion        | L       | 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           |

(5) "\*" = Results are calculated by the minimum weight of mixed components.



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## 3) Phthalates

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

| Test Items                           | MDL   | Resi           | Limit       |                               |  |
|--------------------------------------|-------|----------------|-------------|-------------------------------|--|
|                                      | (%)   | No.3+No.4+No.5 | No.13+No.14 | (%)                           |  |
| Benzyl butyl phthalate (BBP)         | 0.005 | ND*            | ND*         | et let it                     |  |
| Di (2-ethyl hexyl)- phthalate (DEHP) | 0.005 | ND*            | ND*         | sum of four                   |  |
| Dibutyl phthalate (DBP)              | 0.005 | ND*            | ND*         | phthalates < 0.1              |  |
| Diisobutyl phthalate (DIBP)          | 0.005 | ND*            | 0.076*      |                               |  |
| Diisodecyl phthalate (DIDP)          | 0.01  | ND*            | ND*         | AVE, AVE, M                   |  |
| Diisononyl phthalate (DINP)          | 0.01  | ND*            | ND*         | sum of three phthalates < 0.1 |  |
| Di-n-octyl phthalate (DNOP)          | 0.005 | ND*            | ND*         | primalates < 0.1              |  |
| Conclusion                           |       | Pass           | Pass        | ie unite white                |  |

#### Note:

DBP= Dibutyl phthalate
DINP= Di-isononyl phthalate
DIBP= Diisobutyl phthalate
DIBP= Diisobutyl phthalate
DIBP= Diisobutyl phthalate
DIBP= Diisobutyl 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 & No. 2018/2005 (formerly known as Directive 2005/84/EC) for phthalate content in toys and child care articles.
- (6) "\*" = Results are calculated by the minimum weight of mixed components.

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# 4) 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    | Result (mg/kg) |             |
|-----|---|------------|----------|----------------|-------------|
| NO. | Allilles Substances                       | CAS NO.    | (mg/kg)  | No.6+No.7      | No.18+No.19 |
| _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                                | unci - whi | The same | Pass           | Pass        |



| , TE       | arti arti arti arti arti                  | 040 N    | Limit           | Result (mg/kg)    |
|------------|---|----------|-----------------|-------------------|
| No.        | Amines Substances                         | CAS No.  | (mg/kg)         | No.15+No.16+No.17 |
| 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*               |
| 450        | 2-Naphthylamine                           | 91-59-8  | 30              | MND* M            |
| 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*               |
| <b>.</b> 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                                | 4, -     | , <del></del> , | 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
- "\*" = Results are calculated by the minimum weight of mixed components.



## **Test Specimen Description:**

No.1: Silvery metal box

No.2: Silvery metal scissor

No.3: White plastic handle

No.4: White plastic tube

No.5: Black plastic bobbin

No.6: White embroidery thread

No.7: Black embroidery thread

No.8: Silvery metal sheet

No.9: Silvery metal cap

No.10: Silvery metal buckle

No.11: Silvery metal pin

No.12: Silvery metal pin

No.13: Green plastic head

No.14: White transparent plastic button

No.15: Red embroidery thread

No.16: Blue embroidery thread

No.17: Brown embroidery thread

No.18: Pink embroidery thread

No.19: Yellow embroidery thread



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# Sample photo:



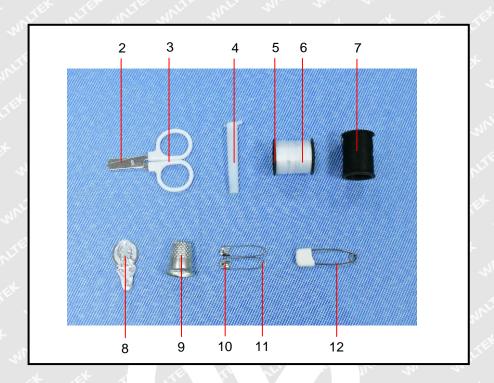
# Photographs of parts tested:

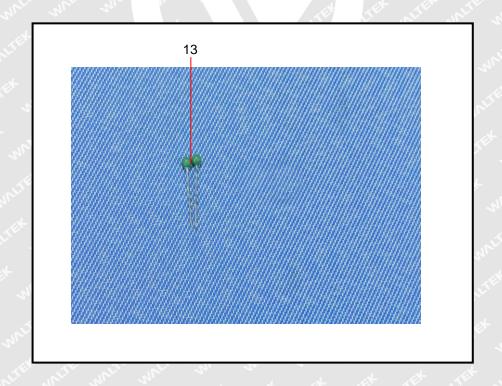




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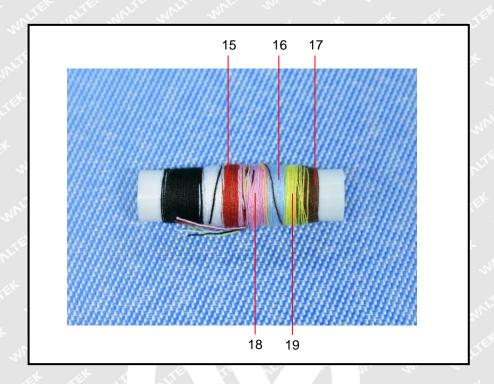


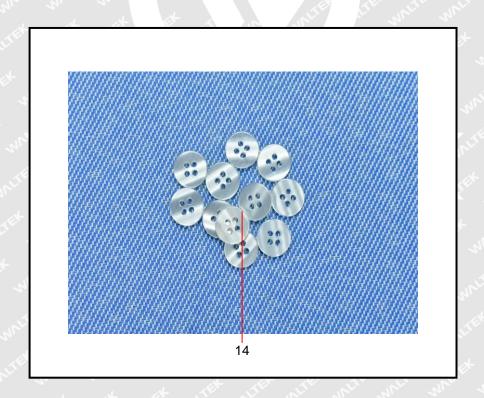




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