TEST REPORT

APPLICANT	:	Mid Ocean Brands B.V.
ADDRESS	:	7/F, Kings Tower, 111 King Lam Street, Cheung Sha Wan, Kowloon, Hong Kong
SAMPLE DESCRIPTION	:	Sport Towel in PET bottel
ITEM NO.	:	MO9203
SUPPLIER	:	107961
SAMPLE RECEIVED DATE	:	19-Apr-2021
FURTHER INFORMATION DATE	:	11-May-2021
TURN AROUND TIME	:	20-Apr-2021 to 12-May-2021
REVISED DATE	:	26-May-2021

The following test item(s) was/were performed on selected sample(s) and/or component(s) confirmed by applicant

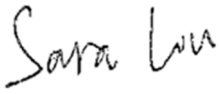
TEST REQUESTED	RESULT
Total Lead Content	Pass
Banned AZO Dyes	Pass
Colour Fastness to Rubbing	Pass
Total Cadmium Content	Pass
Phthalates Content	Pass
Overall Migration	Pass
Specific Migration of Heavy Metal	Pass
Specific Migration of Bisphenol A	Pass

Note: This report cancels and supersedes report number EFHZ21042418-CG-01 issued on May 12th, 2021.
Modification description: as per client's request, update test regulation in the revised report.

Eurofins（Hangzhou）contact information
Customer service: LucyZhao@eurofins.com\+86 571 87203726
Sales specialist: CocoWang@eurofins.com\+86 15990276205

********** FOR FURTHER DETAILS, PLEASE REFER TO THE FOLLOWING PAGE(S) **********

Signed for and on behalf of
Eurofins Product Testing Service (Shanghai) Co., Ltd. Hangzhou Branch



Sara Liu
Lab Manager

SAMPLE PHOTO(S)

A

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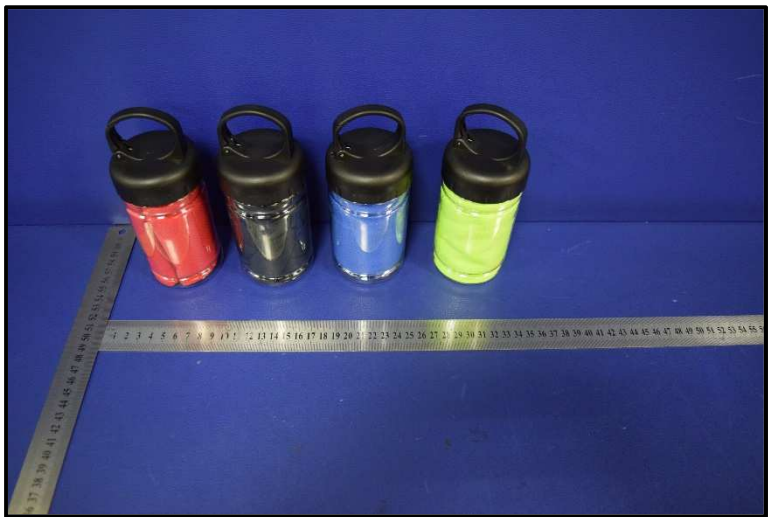
TO BE CONTINUED

REFERENCE SAMPLE PHOTO



The reference samples have not been tested in current report, but according to customer´s request, the pictures have also been included. For sample tested in current report, please refer to “Sample photo(s)”.

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TO BE CONTINUED

TO BE CONTINUED

COMPONENT LIST

Component No.	Component	Sample No.
1	White fabric towel	A
2	Black PET lid	A
3	Transparent PET bottle	A

TO BE CONTINUED

TEST RESULT

Total Lead Content

Test Request: Total lead content as specified in entry 63 of annex XVII of REACH Regulation (EC) No 1907/2006 and its amendment Regulation (EU) No 2015/628.

Test Method: EPA 3052:1996
Microwave digestion method was used and total lead content was determined by ICP-OES.

Test Item(s)	Unit	Limit	MDL	Result	
				1	2+3
Total Lead	mg/kg	500	10	ND	ND

Remark:
mg/kg = milligram per kilogram
MDL = method detection limit
ND = Not detected, less than MDL

As per client's request, only the appointed materials have been tested.

TO BE CONTINUED

TEST RESULT

Banned AZO Dyes

Test Request: Banned AZO dyes as specified in entry 43 of annex XVII of REACH Regulation (EC) No 1907/2006.

Test Method: EN ISO 14362-1:2017

Test Item(s)	CAS No.	Unit	Limit	MDL	Result
					1
4-methyl-m-phenylenediamine / 2,4-Toluylendiamine	95-80-7	mg/kg	30	5	ND
2-Naphthylamine	91-59-8	mg/kg	30	5	ND
4,4'-methylenedi-o-toluidine / 3,3'-Dimethyl-4,4'-diaminodiphenylmethane	838-88-0	mg/kg	30	5	ND
Bis-(4-aminophenyl)methane	101-77-9	mg/kg	30	5	ND
4,4'-Oxydianiline	101-80-4	mg/kg	30	5	ND
4,4'-Thiodianiline	139-65-1	mg/kg	30	5	ND
Benzidine	92-87-5	mg/kg	30	5	ND
o-Toluidine	95-53-4	mg/kg	30	5	ND
5-Nitro-o-toluidine (Note 1)	99-55-8	mg/kg	30	5	ND
4-methoxy-m-phenylenediamine / 2,4-Diaminoanisole	615-05-4	mg/kg	30	5	ND
4,4'-Methylene-bis-(2-chloroaniline)	101-14-4	mg/kg	30	5	ND
o-Aminoazotoluene (Note 1)	97-56-3	mg/kg	30	5	ND
2,4,5-Trimethylaniline	137-17-7	mg/kg	30	5	ND
4-Aminobiphenyl	92-67-1	mg/kg	30	5	ND
o-Anisidine	90-04-0	mg/kg	30	5	ND
3,3'-Dichlorobenzidine	91-94-1	mg/kg	30	5	ND
4-Chloroaniline	106-47-8	mg/kg	30	5	ND
3,3'-Dimethoxybenzidine	119-90-4	mg/kg	30	5	ND
n.d.3,3'-Dimethybenzidine	119-93-7	mg/kg	30	5	ND
4-Amino-azobenzene (Note 2)	60-09-3	mg/kg	30	5	ND
2-Methoxy-5-methylaniline	120-71-8	mg/kg	30	5	ND
4-Chloro-2-methylaniline	95-69-2	mg/kg	30	5	ND

Remarks:

Note 1: The CAS-numbers 97-56-3 and 99-55-8 are further reduced to CAS-numbers 95-53-4 and 95-80-7.
Note 2: 4-Amino-azobenzene(CAS No.:60-09-3) is reduced to aniline and 1,4-phenylenediamine.
Note 3: The weight of component No.XX available is less than 0.2g. According to EN ISO 14362-1:2017 section 9.2, the analysis of this component is omitted.
mg/kg = milligram per kilogram
MDL = method detection limit
ND = Not detected, less than MDL

TO BE CONTINUED

TEST RESULT

Colour Fastness to Rubbing
DIN EN ISO 105-X12:2016

	1	Requirement:
Lengthwise		
Dry	4-5	Grade 2-3
Wet	4-5	Grade 2-3
Widthwise		
Dry	4-5	Grade 2-3
Wet	4-5	Grade 2-3

Remark:
Grey Scale for Assessing Colour Change/Staining
Grade 5 negligible or no change or staining
Grade 4 slightly changed or stained
Grade 3 noticeably changed or stained
Grade 2 considerably changed or stained
Grade 1 much changed or stained

TO BE CONTINUED

TEST RESULT

Total Cadmium Content

Test Request: Total cadmium content as specified in Commission Regulation (EU) 2016/217 amending entry 23 of Annex XVII of REACH Regulation (EC) No 1907/2006.

Test Method: EPA 3052:1996, EN 1122:2001 Method B, acid digestion method was used and total cadmium content was determined by ICP-OES.

Test Item(s)	Unit	Limit	MDL	Result
				2+3
Total Cadmium	mg/kg	100	5	8

Remark:
mg/kg = milligram per kilogram
MDL = method detection limit
ND = Not detected, less than MDL

Phthalates Content

Test Request: Phthalates content as specified in entry 51&52 of annex XVII of REACH Regulation (EC) No 1907/2006 and its amendment Commission Regulation (EU) 2018/2005.

Test Method: EPA 3550C:2007, EPA 8270E:2018, solvent extraction and quantification by GC-MS.

Test Item(s)	CAS No.	Unit	Limit	MDL	Result
					2+3
Dibutyl phthalate (DBP)	84-74-2	%	-	0.005	ND
Benzylbutyl phthalate (BBP)	85-68-7	%	-	0.005	ND
Diethylhexyl phthalate (DEHP)	117-81-7	%	-	0.005	ND
Diisobutyl phthalate (DIBP)	84-69-5	%	-	0.005	ND
Sum of DEHP+DBP+BBP+DIBP	-	%	0.1	-	ND
Di-n-octyl phthalate (DNOP)	117-84-0	%	-	0.005	ND
Diisononyl phthalate (DINP)	28553-12-0	%	-	0.005	ND
Diisodecyl phthalate (DIDP)	26761-40-0	%	-	0.005	ND
Sum (DNOP + DINP + DIDP)	-	%	0.1	-	ND

Remarks:
MDL = method detection limit
ND = Not detected, less than MDL
"-" = Not Regulated

According to client's request, tests are combination tests. The experimental results are the total result of mixed samples.

TO BE CONTINUED

TEST RESULT

Overall Migration

Test Requested : To determine the Overall Migration for compliance with Regulation (EC) No 1935/2004, and Commission Regulation (EU) No 10/2011 and its amendments (EU) 2020/1245 relating to plastic materials and articles intended to come into contact with foodstuffs.

Test Method : With reference to EN1186-1:2002 for selection of conditions and test methods;
or EN1186-3:2002 aqueous food simulants by total immersion method;
or EN1186-9:2002 aqueous food simulants by article filling method;
or EN1186-2:2002 olive oil by total immersion method;
or EN1186-8:2002 olive oil by article filling method;
or EN 1186-14:2002 substitute test

Simulant used	Time	Temperature	Max. Permissible Limit	Result 2		
				1st Test	2nd Test	3rd Test
3% Acetic Acid (W/V) Aqueous Solution	2hrs	70℃	10 mg/dm^2	<3.0 mg/dm^2	<3.0 mg/dm^2	<3.0 mg/dm^2
50% Ethanol (V/V) Aqueous Solution	2hrs	70℃	10 mg/dm^2	<3.0 mg/dm^2	<3.0 mg/dm^2	<3.0 mg/dm^2

Simulant used	Time	Temperature	Max. Permissible Limit	Result 3		
				1st Test	2nd Test	3rd Test
3% Acetic Acid (W/V) Aqueous Solution	2hrs	70℃	10 mg/dm^2	<3.0 mg/dm^2	<3.0 mg/dm^2	<3.0 mg/dm^2
50% Ethanol (V/V) Aqueous Solution	2hrs	70℃	10 mg/dm^2	<3.0 mg/dm^2	<3.0 mg/dm^2	<3.0 mg/dm^2

Note :

(1) mg/dm^2=milligram per square decimeter
(2) ℃=degree Celsius
(3) <= less than
(4) Analytical tolerance of aqueous simulants is 1 mg/dm^2
(5) Analytical tolerance of fatty food simulants is 3 mg/dm^2
(6) Test condition & simulant were specified by client.

TO BE CONTINUED

TEST RESULT

Specific Migration of Heavy Metal

Test Requested : To determine the Specific Migration of Heavy Metal for compliance with Regulation (EC) No 1935/2004, and Commission Regulation (EU) No. 10/2011 and its amendments(EU) 2020/1245 relating to plastic materials and articles intended to come into contact with foodstuffs

Test Method : With reference to Regulation (EU) 10/2011 for selection of test condition and EN 13130-1:2004 for test preparation method; analysis was performed by ICP-MS.

Simulant used : 3% Acetic Acid (W/V) Aqueous Solution
Test condition : 70℃ 2hours

Test Item(s)	Max. Permissible limit	Unit	MDL	Test Result		
				2		
				1st test	2nd test	3rd test
Barium(Ba)	1	mg/kg	0.25	ND	ND	ND
Cobalt(Co)	0.05	mg/kg	0.05	ND	ND	ND
Copper(Cu)	5	mg/kg	0.25	ND	ND	ND
Iron(Fe)	48	mg/kg	0.25	ND	ND	ND
Lithium(Li)	0.6	mg/kg	0.5	ND	ND	ND
Manganese(Mn)	0.6	mg/kg	0.05	ND	ND	ND
Zinc(Zn)	5	mg/kg	0.5	ND	ND	ND
Aluminum(Al)	1	mg/kg	0.1	ND	ND	ND
Nickel(Ni)	0.02	mg/kg	0.01	ND	ND	ND
Antimony(Sb)	0.04	mg/kg	0.01	ND	ND	ND
Arsenic(As)	ND	mg/kg	0.01	ND	ND	ND
Cadmium(Cd)	ND	mg/kg	0.002	ND	ND	ND
Chromium(Cr)	ND	mg/kg	0.01	ND	ND	ND
Lead(Pb)	ND	mg/kg	0.01	ND	ND	ND
Mercury(Hg)	ND	mg/kg	0.01	ND	ND	ND
Europium(Eu)	-	mg/kg	0.01	ND	ND	ND
Gadolinium((Ga)	-	mg/kg	0.01	ND	ND	ND
Lanthanum(La)	-	mg/kg	0.01	ND	ND	ND
Terbium(Tb)	-	mg/kg	0.01	ND	ND	ND
Sum of all lanthanide substances	0.05	mg/kg	-	ND	ND	ND

Remark:

(1) mg/kg = milligram per kilogram
(2) MDL = Method Detection Limit
(3) ND = Not detected, less than MDL
(4) Test condition & simulant were specified by client.

TO BE CONTINUED

TEST RESULT

Specific Migration of Heavy Metal

Test Requested : To determine the Specific Migration of Heavy Metal for compliance with Regulation (EC) No 1935/2004, and Commission Regulation (EU) No. 10/2011 and its amendments(EU) 2020/1245 relating to plastic materials and articles intended to come into contact with foodstuffs

Test Method : With reference to Regulation (EU) 10/2011 for selection of test condition and EN 13130-1:2004 for test preparation method; analysis was performed by ICP-MS.

Simulant used : 3% Acetic Acid (W/V) Aqueous Solution
Test condition : 70℃ 2hours

Test Item(s)	Max. Permissible limit	Unit	MDL	Test Result		
				3		
				1st test	2nd test	3rd test
Barium(Ba)	1	mg/kg	0.25	ND	ND	ND
Cobalt(Co)	0.05	mg/kg	0.05	ND	ND	ND
Copper(Cu)	5	mg/kg	0.25	ND	ND	ND
Iron(Fe)	48	mg/kg	0.25	ND	ND	ND
Lithium(Li)	0.6	mg/kg	0.5	ND	ND	ND
Manganese(Mn)	0.6	mg/kg	0.05	ND	ND	ND
Zinc(Zn)	5	mg/kg	0.5	ND	ND	ND
Aluminum(Al)	1	mg/kg	0.1	ND	ND	ND
Nickel(Ni)	0.02	mg/kg	0.01	ND	ND	ND
Antimony(Sb)	0.04	mg/kg	0.01	ND	ND	ND
Arsenic(As)	ND	mg/kg	0.01	ND	ND	ND
Cadmium(Cd)	ND	mg/kg	0.002	ND	ND	ND
Chromium(Cr)	ND	mg/kg	0.01	ND	ND	ND
Lead(Pb)	ND	mg/kg	0.01	ND	ND	ND
Mercury(Hg)	ND	mg/kg	0.01	ND	ND	ND
Europium(Eu)	-	mg/kg	0.01	ND	ND	ND
Gadolinium((Ga)	-	mg/kg	0.01	ND	ND	ND
Lanthanum(La)	-	mg/kg	0.01	ND	ND	ND
Terbium(Tb)	-	mg/kg	0.01	ND	ND	ND
Sum of all lanthanide substances	0.05	mg/kg	-	ND	ND	ND

Remark:

(1) mg/kg = milligram per kilogram
(2) MDL = Method Detection Limit
(3) ND = Not detected, less than MDL
(4) Test condition & simulant were specified by client.

TO BE CONTINUED

TEST RESULT

Specific Migration of Bisphenol A

Test Request:	To determine the specific migration of Bisphenol A, in accordance with Regulation (EC) No 1935/2004, and Commission Regulation (EU) No. 10/2011 and its amendment Commission Regulation (EU) No 2020/1245, for materials and articles intended to come into contact with food and foodstuffs.
Test Method:	With reference to EU 10/2011 for selection of test condition, with reference to BS EN 13130-1:2004 for sample preparation, analysis was performed by LC-MS.
Simulant Used:	3% Acetic Acid (W/V) Aqueous Solution
Test Condition:	70℃ 2hours

Tested Item(s)	Unit	Limit	MDL	Result	
				2	3
Specific migration of 2,2-bis(4-hydroxyphenyl) propane (Bisphenol A)	mg/kg	0.05	0.01	ND	ND

Remark:

(1) mg/kg = milligram per kilogram
(2) ND = not detected, less than MDL
(3) MDL = method detection limit
(4) Test condition & simulant were specified by client.

END OF THE REPORT