

TEST REPORT

<u>APPLICANT</u>	: Mid Ocean Brands B.V.
<u>ADDRESS</u>	: 7/F., Kings Tower, 111 King Lam Street, Cheung Sha Wan, Kowloon, Hong Kong
<u>SAMPLE DESCRIPTION</u>	: 750ml bottle with bamboo lid include silver handle
<u>MODEL NO.</u>	: MO6372
<u>PRODUCT MATERIAL</u>	: stainless steel; bamboo; silicone
<u>COUNTRY OF ORIGIN</u>	: China
<u>COUNTRY OF DESTINATION</u>	: EU
<u>SAMPLE RECEIVED DATE</u>	: 19-May-2023
<u>SAMPLE RESUBMISSION DATE</u>	: 08-Jun-2023
<u>TURN AROUND TIME</u>	: 19-May-2023 to 14-Jun-2023
<u>REVISED DATE</u>	: 13-Dec-2023



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

TEST REQUESTED	RESULT
Overall Migration-EU	Pass
Overall Migration-DGCCRF	Pass
Specific Migration of Bisphenol A-EU	Pass
Specific Migration of Bisphenol A-DGCCRF	Pass
Peroxide Value	Pass
Specific migration of Organotin (as tin)	Pass
Volatile Organic Matter (VOM)	Pass
Specific Release of Heavy Metals	Pass
Total Bisphenol A (BPA) Content	Pass
Total Lead Content	Pass
Total Cadmium Content	Pass
Phthalates Content	Pass
Polycyclic Aromatic Hydrocarbons (PAHs)	Pass
Formaldehyde Release	Pass
Pentachlorophenol (PCP) Content	Pass

Remark: This report cancels and supersedes report number EFHZ23053088-CG-01+Rev2 issued on Dec 11, 2023. Modification description: Per client's request, add QR code in the revised report.

Regarding EFHZ23053088-CG-01+Rev1: The client submitted sample B&C on Nov 29, 2023 for Total Lead Content, Total Cadmium Content, Phthalates Content, Polycyclic Aromatic Hydrocarbons (PAHs) and Pentachlorophenol (PCP) Content test in the EFHZ23053088-CG-01+Rev1. So this report canceled and superseded report number EFHZ23053088-CG-01 issued on Jun 14, 2023.

Regarding EFHZ23053088-CG-01+Rev2: Per client's request, modified component list in the EFHZ23053088-CG-01+Rev2. So this report canceled and superseded report number EFHZ23053088-CG-01+Rev1 issued on Dec 06, 2023.

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***** 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

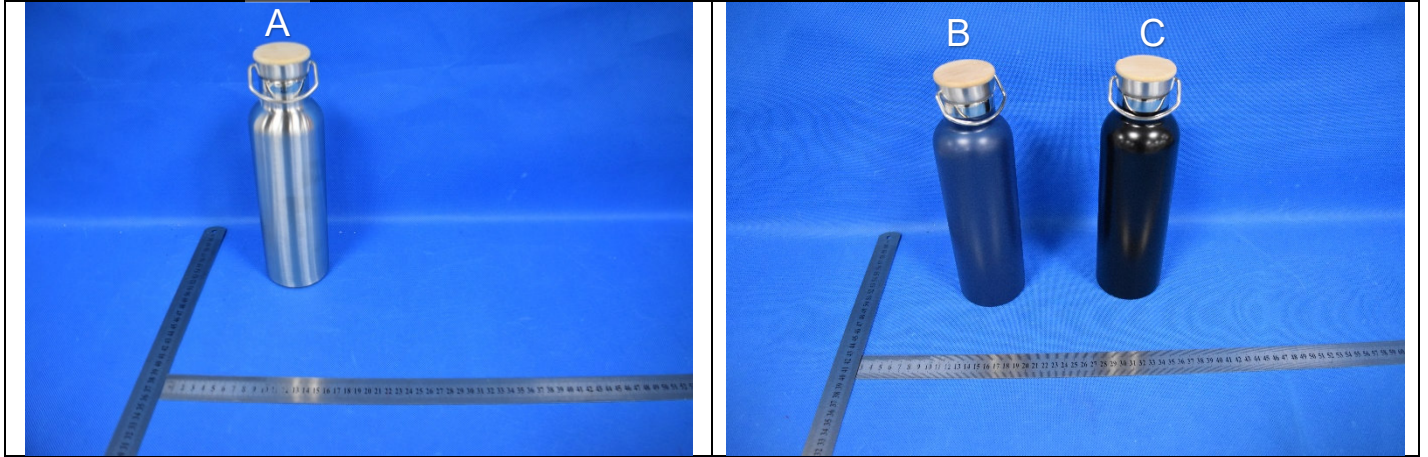


Lincoln Shi
Lab Manager of HZ Chemical Laboratory



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SAMPLE PHOTO(S)



EFHZ23053088-CG-01+Rev3

COMPONENT LIST

Component No.	Component	Sample No.
1	Semitransparent silicone ring	A,B,C
2	Primary color bamboo lid	A,B,C
3	Silver stainless steel	A,B,C
4	Black coating on metal	C
5	Navy coating on metal	B
6	Primary color bamboo lid	A,B,C

TO BE CONTINUED

TEST RESULT

Overall Migration-EU

Test Request: In accordance with Council of Europe Resolution AP (2004) 5.

Test Method: With reference to EN1186-1:2002 for selection of conditions and test methods;
EN1186-3:2022 overall migration in evaporable simulants by total immersion method.

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

Note:

- (1) mg/dm²=milligram per square decimeter
- (2) °C=degree Celsius
- (3) <= less than
- (4) Test condition & simulant were specified by client.

TO BE CONTINUED

TEST RESULT

Overall Migration-DGCCRF

Test Request: In accordance with French Décret 2007-766 and its amendments , and French Arrêté du 25 Novembre 1992.

Test Method: With reference to EN1186-1:2002 for selection of conditions and test methods;
EN1186-3:2022 overall migration in evaporable simulants by total immersion method.

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

Remark:

(1) Test condition & simulant were specified by client.

TO BE CONTINUED

TEST RESULT

Specific Migration of Bisphenol A-EU

Test Request: With reference to determine Specific Migration of Bisphenol A in accordance with Commission Regulation (EU) No 10/2011 and its amendments.
 Test Method: With reference to BS EN 13130-1:2004, analysis was performed by LC-MS.
 Simulant Used: 3% Acetic Acid (W/V) Aqueous Solution
 Test Condition: 70°C 2hours

Test Item	Unit	Limit	MDL	Result		
				1		
				1 st Test	2 nd Test	3 rd Test
2,2-bis(4-hydroxyphenyl) Propane (Bisphenol A)	mg/kg	0.05	0.01	ND	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.

Specific Migration of Bisphenol A-DGCCRF

Test Request: With reference to Commission Regulation (EU) No 10/2011 and its amendments and DGCCRF Food contact suitability of organic materials from synthetic materials – Fiche MCDA n°3 (V03-09/09/2021).
 Test Method: With reference to BS EN 13130-1:2004, analysis was performed by LC-MS.
 Simulant Used: 3% Acetic Acid (W/V) Aqueous Solution
 Test Condition: 70°C 2hours

Test Item(s)	Unit	Limit	MDL	Result		
				1		
				1 st Test	2 nd Test	3 rd Test
2,2-bis(4-hydroxyphenyl) Propane (Bisphenol A)	mg/kg	0.05	0.01	ND	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

TO BE CONTINUED

TEST RESULT

Peroxide Value

Test Request: In accordance with German Food, Articles of Daily Use and Feed Code of September 1, 2005 (LFGB), Section 30 and 31, and BfR recommendation.

Test Method: With reference to European Pharmacopoeia 9.0 part 2.5.5. Peroxide Value method A.

Test Item(s)	Limit	Result
		1
Peroxide Value	Absent	Absent

Specific migration of Organotin (as tin)

Test Requested: In accordance with French Décret 2007-766 and its amendments, and French Arrêté du 25 November 1992 for silicone materials.

Test Method: With reference to BS EN 13130-1:2004, analysis was performed by ICP-MS.

Simulant Used: 3% Acetic Acid(W/V) Aqueous Solution

Test Condition: 70°C 2hours

Test Item(s)	Limit	Unit	MDL	Result		
				1		
				1 st Test	2 nd Test	3 rd Test
Organotin (as tin)	0.1	mg/kg	0.01	ND	ND	ND

Remark:

- (1) mg/kg = milligram per kilogram
- (2) MDL = method detection limit
- (3) ND = not detected (<MDL)

TO BE CONTINUED

TEST RESULT

Volatile Organic Matter (VOM)

Test Request: In accordance with French Décret 2007-766 and its amendments , and French Arrêté du 25 Novembre 1992.

Test Method: With reference to French Arrêté du November 1992 Annex III.

Test Item(s)	Max. Permissible Limit	Unit	MDL	Result
				1
Volatile organic matter (VOM)	0.5	%	0.10	0.17

TO BE CONTINUED

TEST RESULT

Specific Release of Heavy Metals

Test Request: In accordance with Resolution CM/Res (2013)9 on metals and alloys used in food contact materials and articles.
 Test Method: With reference to Resolution CM/Res(2013)9, analysis was performed by ICP-MS.
 Simulant Used: 0.5% citric acid
 Test Condition: 70°C 2hours

Test Item(s)	Unit	MDL	Result			
			3			
			1 st + 2 nd Migration		3 rd Migration	
			Result	7xSRL ^{*2}	Result	SRL ^{*1}
Aluminum (Al)	mg/kg	0.5	ND	35	ND	5
Antimony (Sb)	mg/kg	0.01	ND	0.28	ND	0.04
Chromium (Cr)	mg/kg	0.05	ND	1.75	ND	0.25
Cobalt (Co)	mg/kg	0.005	ND	0.14	ND	0.02
Copper (Cu)	mg/kg	0.5	ND	28	ND	4
Iron (Fe)	mg/kg	5	ND	280	ND	40
Manganese (Mn)	mg/kg	0.2	ND	12.6	ND	1.8
Molybdenum (Mo)	mg/kg	0.01	ND	0.84	ND	0.12
Nickel (Ni)	mg/kg	0.01	ND	0.98	ND	0.14
Silver (Ag)	mg/kg	0.01	ND	0.56	ND	0.08
Tin ^{*3} (Sn)	mg/kg	5	ND	700	ND	100
Vanadium (V)	mg/kg	0.001	ND	0.07	ND	0.01
Zinc (Zn)	mg/kg	0.5	ND	35	ND	5
Arsenic (As)	mg/kg	0.0005	ND	0.014	ND	0.002
Barium (Ba)	mg/kg	0.1	ND	8.4	ND	1.2
Beryllium (Be)	mg/kg	0.001	ND	0.07	ND	0.01
Cadmium (Cd)	mg/kg	0.001	ND	0.035	ND	0.005
Lead (Pb)	mg/kg	0.001	ND	0.07	ND	0.01
Lithium (Li)	mg/kg	0.005	ND	0.336	ND	0.048
Mercury (Hg)	mg/kg	0.0005	ND	0.021	ND	0.003
Thallium (Tl)	mg/kg	0.00005	ND	0.0007	ND	0.0001
Magnesium(Mg)	mg/kg	0.1	ND	-	ND	-
Titanium(Ti)	mg/kg	0.1	ND	-	ND	-

Note:

- (1) mg/kg = milligram per kilogram
- (2) MDL = method detection limit
- (3) ND = not detected (<MDL)
- (4) SRL = Specific Release Limit
- (5) *1 Compliance is established on the result from the third migration test for repeated used articles.
- (6) *2 Meantime, the sum of the results of the first and second tests should not exceed 7 times the SRL
- (7) *3 Except in field of application under Regulation (EC) No.1881/2006.(canned food container)
- (8) Test condition & simulant were specified by client.

TO BE CONTINUED

TEST RESULT

Total Bisphenol A (BPA) Content

Test Request: In accordance with French Décret 2007-766 and its amendments, and French Law No. 2012/1442.

Test Method: With reference to EPA 3550C:2007, EPA 8321B:2007, solvent extraction and determination by LC-MS.

Test Item(s)	CAS No.	Unit	Limit	MDL	Result
					1
Bisphenol A	80-05-7	mg/kg	ND	0.1	ND

Remarks:

mg/kg = milligram per kilogram

MDL = method detection limit

ND = Not detected, less than MDL

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 3050B:1996, EPA 3051A:2007, EPA 3052:1996
Acid digestion/ microwave digestion method was used and total lead content was determined by ICP-OES.

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

Test Item(s)	Unit	Limit	MDL	Result	
				4+5	6
Total Lead	mg/kg	500	10	ND	ND

Remark:

mg/kg = milligram per kilogram

MDL = method detection limit

ND = Not detected, less than MDL

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

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 3050B:1996, 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	
				1	2
Total Cadmium	mg/kg	100	5	ND	10

Test Item(s)	Unit	Limit	MDL	Result
				4+5
Total Cadmium	mg/kg	1000	5	ND

Remark:

mg/kg = milligram per kilogram

MDL = method detection limit

ND = Not detected, less than MDL

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

TO BE CONTINUED

TEST RESULT

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	
					1	2
Dibutylphthalate (DBP)	84-74-2	%	-	0.005	ND	ND
Benzyl butyl phthalate (BBP)	85-68-7	%	-	0.005	ND	ND
Diethylhexylphthalate (DEHP)	117-81-7	%	-	0.005	ND	ND
Di-isobutyl phthalate (DiBP)	84-69-5	%	-	0.005	ND	ND
Sum of (DEHP+DBP+BBP+DIBP)	-	%	0.1	-	ND	ND
Di-n-octylphthalate (DNOP)	117-84-0	%	-	0.005	ND	ND
Diisononyl phthalate (DINP)	28553-12-0	%	-	0.005	ND	ND
Diisodecyl phthalate (DIDP)	26761-40-0	%	-	0.005	ND	ND
Sum (DNOP + DINP + DIDP)	-	%	0.1	-	ND	ND

Test Item(s)	CAS No.	Unit	Limit	MDL	Result
					4+5
Dibutylphthalate (DBP)	84-74-2	%	-	0.005	ND
Benzyl butyl phthalate (BBP)	85-68-7	%	-	0.005	ND
Diethylhexylphthalate (DEHP)	117-81-7	%	-	0.005	ND
Di-isobutyl phthalate (DiBP)	84-69-5	%	-	0.005	ND
Sum of (DEHP+DBP+BBP+DIBP)	-	%	0.1	-	ND
Di-n-octylphthalate (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:

1 mg/kg = 1 ppm = 0.0001%

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

Polycyclic Aromatic Hydrocarbons (PAHs)

Test Request: Polycyclic Aromatic Hydrocarbons (PAHs) content as specified in Regulation (EU) 2015/326 amending entry 50 of Annex XVII of REACH Regulation (EC) No 1907/2006.

Test Method: Solvent extraction and quantification by gas chromatography-mass selective detection (GC-MS) with respect to AfPS GS 2019:01 PAK

Test Item(s)	CAS No.	Unit	Limit	MDL	Result	
					1	2
Benzo(a)anthracene	56-55-3	mg/kg	1	0.2	ND	ND
Chrysene	218-01-9	mg/kg	1	0.2	ND	ND
Benzo(b)fluoranthene	205-99-2	mg/kg	1	0.2	ND	ND
Benzo(j)fluoranthene	205-82-3	mg/kg	1	0.2	ND	ND
Benzo(k)fluoranthene	207-08-9	mg/kg	1	0.2	ND	ND
Benzo(a)pyrene	50-32-8	mg/kg	1	0.2	ND	ND
Dibenzo(a,h)anthracene	53-70-3	mg/kg	1	0.2	ND	ND
Benzo(e)pyrene	192-97-2	mg/kg	1	0.2	ND	ND

Test Item(s)	CAS No.	Unit	Limit	MDL	Result
					4+5
Benzo(a)anthracene	56-55-3	mg/kg	1	0.2	ND
Chrysene	218-01-9	mg/kg	1	0.2	ND
Benzo(b)fluoranthene	205-99-2	mg/kg	1	0.2	ND
Benzo(j)fluoranthene	205-82-3	mg/kg	1	0.2	ND
Benzo(k)fluoranthene	207-08-9	mg/kg	1	0.2	ND
Benzo(a)pyrene	50-32-8	mg/kg	1	0.2	ND
Dibenzo(a,h)anthracene	53-70-3	mg/kg	1	0.2	ND
Benzo(e)pyrene	192-97-2	mg/kg	1	0.2	ND

Remarks:

mg/kg = milligram per kilogram

MDL = method detection limit

ND = Not detected, less than MDL

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

TO BE CONTINUED

TEST RESULT

Formaldehyde Release

Test Method: EN 717-3:1996, formaldehyde release was determined by UV-Visible Spectrophotometer (UV-Vis) analysis.

Test Item(s)	Unit	MDL	Client's limit	Result
				2
Formaldehyde	mg/kg	5	80	ND

Remark:

mg/kg = milligram per kilogram

MDL = method detection limit

ND = Not detected, less than MDL

Pentachlorophenol (PCP) Content

Test Request: Pentachlorophenol and its salts and esters content as specified in Regulation (EU) 2019/1021 and its amendment Commission Regulation (EU) 2021/277 of the European Parliament and of the Council on persistent organic pollutants as regards Annex I Part A.

Test Method: With reference to EPA3550C:2007, EPA8270E:2018, analysis was performed by GC-MS.

Test Item(s)	CAS No.	Unit	Limit	MDL	Result
					6
Pentachlorophenol (PCP)	87-86-5	mg/kg	5	0.05	ND

Remarks:

mg/kg = milligram per kilogram

MDL = method detection limit

ND = Not detected, less than MDL

END OF THE REPORT