

TEST REPORT

Test Report # 20A-003067(A1) Date of Report Issue: June 24, 2020
Date of Sample Received: June 15, 2020 Pages: Page 1 of 18

CLIENT INFORMATION:

Company: Mid Ocean Brands B.V.
Address: 7/F., Kings Tower, 111 King Lam Street, Cheung Sha Wan, Kowloon, Hong Kong



SAMPLE INFORMATION:

Product Name: Set of 750ml SS double wall bottle with 2 SS glasses
Style No.: - Labeled Age Grade: -
Order No.(PO No.): - Client Request Age Grade: -
Country of Origin: - Recommended Age Grade: -
Country of Distribution: Europe Tested Age Grade: -
Model No.: MO9971
Composition/Main Material: Stainless steel,PP,PS,silicone
Buyer Name: Mid Ocean Brands B.V.
Supplier Name: 100396
Testing Period: 06/16/2020-06/24/2020

OVERALL RESULT:

PASS

Please refer to the following pages for test result summary and appropriate notes.

QIMA (HANGZHOU) TESTING CO., LTD.

Kevin Lee

Kevin Lee
Technical Manager



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♦ Email: Labtesting@qima.com ♦ Tel: (86) 571 8999 7158.

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TEST RESULTS SUMMARY:

At the request of the client, the following tests were conducted:

CONCLUSION	TEST(S) CONDUCTED
PASS	Regulation (EC) No. 1907/2006 REACH Annex XVII, Item 63 Lead in Substrate Materials
PASS	Regulation (EC) No. 1907/2006 REACH Annex XVII, Item 23 Cadmium in Substrate Materials
PASS	Regulation (EC) No. 1907/2006 REACH Annex XVII as amended, Item 51 and 52 Phthalates – Mouthable (DBP, BBP, DEHP, DIBP, DnOP, DINP, DIDP)
PASS	Client’s requirement, Bisphenol A content
PASS	Council of Europe Resolution CM/Res(2013)9, Metals and Alloys Used in Food Contact Materials –Extractable 21 elements
PASS	Regulation (EC) No 1935/2004, (EU) No 10/2011 and its amendment (EU) 2016/1416- Overall migration
PASS	Regulation (EC) No 1935/2004, (EU) No 10/2011 and its amendment (EU) 2016/1416- Specific migration of heavy metals
PASS	Regulation (EC) No 1935/2004, (EU) No 10/2011- Phthalates content
PASS	European Resolution ResAP(2004)5 on Silicones Used for Food Contact Applications - Overall Migration
PASS	Commission Regulation (EU) No. 10/2011 with its amendments, Specific Migration - Primary Aromatic Amines ^φ



DETAILED RESULTS:

Regulation (EC) No. 1907/2006 REACH Annex XVII, Item 63 Lead in Substrate Materials

Test Method: CPSC-CH-E1001-08.3 (Metal) and/or CPSC-CH-E1002-08.3 (Non-Metal)

Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	1	2	3	---	---	Limit (mg/kg)
Test Item	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Total Lead (Pb)	ND	ND	ND	---	---	500
Conclusion	PASS	PASS	PASS	---	---	

Note:

mg/kg = Milligrams per kilogram

LT = Less than

ND = Not detected (Reporting Limit = 15 mg/kg)



DETAILED RESULTS:

Regulation (EC) No. 1907/2006 REACH Annex XVII, Item 23 Cadmium in Substrate Materials

Test Method: ASTM F963-17 Clause 8.3.1

Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	1	2	3	---	---	Limit (mg/kg)
Test Item	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Total Cadmium (Cd)	ND	ND	ND	---	---	100
Conclusion	PASS	PASS	PASS	---	---	

Note:

mg/kg = Milligrams per kilogram

LT = Less than

ND = Not detected (Reporting Limit = 15mg/kg)



DETAILED RESULTS:

Regulation (EC) No. 1907/2006 REACH Annex XVII as amended, Item 51 and 52 Phthalates – Mouthable (DBP, BBP, DEHP, DIBP, DnOP, DINP, DIDP)

Test Method: CPSC-CH-C1001-09.4
 Analytical Method: Gas Chromatography with Mass Spectrometry

Specimen No.		1+2	3	---	Limit (mg/kg)
Test Item	CAS No.	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Dibutyl phthalate (DBP)	84-74-2	ND	ND	---	1000
Benzyl butyl phthalate (BBP)	85-68-7	ND	ND	---	1000
Di-(2-ethylhexyl) phthalate (DEHP)	117-81-7	ND	ND	---	1000
Diisobutyl phthalate (DIBP)	84-69-5	ND	ND	---	1000
Sum of DBP, BBP, DEHP, DIBP		ND	ND	---	1000
Di-n-octyl phthalate (DnOP)	117-84-0	ND	ND	---	
Diisononyl phthalate (DINP)	28553-12-0 68515-48-0	ND	ND	---	
Diisodecyl phthalate (DIDP)	26761-40-0 68515-49-1	ND	ND	---	
Sum of DnOP, DINP, DIDP		ND	ND	---	1000
Conclusion		PASS	PASS	---	

Note:
 mg/kg (Milligrams per kilogram) = ppm (Parts per million) = 0.0001 % m/m (Percent by mass)
 LT = Less than
 ND = Not detected (Reporting Limit = 150 mg/kg)
 Composite results are based on specimen of least mass resulting in highest potential concentration.



DETAILED RESULTS:

Client's requirement, Bisphenol A content

Test Method: In-House Method
 Analytical Method: Gas Chromatography-Mass Spectrometer
 Liquid Chromatography-Mass Spectrometer (LC-MS)

Specimen No.		1	2	3	---	Client's limit (mg/kg)
Test Item	CAS No.	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Bisphenol A (BPA)	80-05-7	ND	ND	ND	---	Not Detected
Conclusion		PASS	PASS	PASS	---	

Note:
 mg/kg=milligram per kilogram
 ND=Not Detected(Reporting limit = 1mg/kg)



DETAILED RESULTS:

Council of Europe Resolution CM/Res(2013)9, Metals and Alloys Used in Food Contact Materials – Extractable 21 elements

Test Method: ISO 17294-2:2016
 Analytical Method: Inductively Coupled Plasma-Mass Spectrometry

Test Condition:

Simulant: Artificial Water Temperature: 70 °C Duration: 2 hours

Specimen No.	4		RL (mg/kg)	1 st +2 nd Migration (mg/kg)	3 rd Migration (mg/kg)
Test Item	1 st +2 nd Migration (mg/kg)	3 rd Migration (mg/kg)			
Aluminum (Al)	ND	ND	0.5	35	5
Antimony (Sb)	ND	ND	0.01	0.28	0.04
Arsenic (As)	ND	ND	0.001	0.014	0.002
Barium (Ba)	ND	ND	0.1	8.4	1.2
Beryllium (Be)	ND	ND	0.005	0.07	0.01
Cadmium (Cd)	ND	ND	0.001	0.035	0.005
Chromium (Cr)	ND	ND	0.1	1.75	0.25
Cobalt (Co)	ND	ND	0.01	0.14	0.02
Copper (Cu)	ND	ND	0.5	28	4
Iron (Fe)	ND	ND	5	280	40
Lead (Pb)	ND	ND	0.005	0.07	0.01
Lithium (Li)	ND	ND	0.005	0.336	0.048
Manganese (Mn)	ND	ND	0.5	12.6	1.8
Mercury (Hg)	ND	ND	0.0005	0.021	0.003
Molybdenum (Mo)	ND	ND	0.05	0.84	0.12
Nickel (Ni)	ND	ND	0.05	0.98	0.14
Silver (Ag)	ND	ND	0.05	0.56	0.08
Thallium (Tl)	ND	ND	0.00005	0.0007	0.0001
Tin (Sn)	ND	ND	5	700	100
Vanadium (V)	ND	ND	0.005	0.07	0.01
Zinc (Zn)	ND	ND	0.5	35	5
Conclusion	PASS	PASS			



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Note:

mg/kg = Milligrams per kilogram foodstuff

LT = Less than

ND = Not detected. Result value is less than reporting limit (RL).



DETAILED RESULTS:

Regulation (EC) No 1935/2004, (EU) No 10/2011 and its amendment (EU) 2016/1416- Overall migration

Test method: EN1186-1:2002: for selection of conditions and test methods
 EN1186-3:2002: aqueous food simulants by total immersion

Specimen No.		1	2	---	Maximum permissible Limit (mg/dm ²)
Simulant used	Test condition	Result (mg/dm ²)	Result (mg/dm ²)	Result (mg/dm ²)	
10% ethanol	2 hours at 70°C	ND	ND	---	10
3% acetic acid	2 hours at 70°C	ND	ND	---	10
Conclusion		PASS	PASS	---	

Note:

mg/dm² = milligram per square decimeter

ND = Not Detected (Reporting limit = 3 mg/dm²)



DETAILED RESULTS:

Regulation (EC) No 1935/2004, (EU) No 10/2011 and its amendment (EU) 2016/1416- Specific migration of heavy metals

Test method: Sample preparation in 3% acetic acid at 70°C for 2hours ,ISO 17294-2:2016

Analytical Method: Inductively Coupled Plasma-Mass Spectrometry

Specimen No.		1	---	---	---	Maximum permissible Limit (mg/kg)
Test Item	Detection limit	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Barium	0.1	ND	---	---	---	1
Cobalt	0.05	ND	---	---	---	0.05
Copper	0.5	ND	---	---	---	5
Iron	1.0	ND	---	---	---	48
Lithium	0.1	ND	---	---	---	0.6
Manganese	0.1	ND	---	---	---	0.6
Zinc	1.0	ND	---	---	---	5
Aluminum	0.1	ND	---	---	---	1
Nickel	0.01	ND	---	---	---	0.02
Conclusion		PASS	---	---	---	

Note:

mg/kg=milligram per kilogram

ND= Not Detected



DETAILED RESULTS:

Regulation (EC) No 1935/2004, (EU) No 10/2011 and its amendment (EU) 2016/1416- Specific migration of heavy metals

Test method: Sample preparation in 3% acetic acid at 70°C for 24hours ,ISO 17294-2:2016

Analytical Method: Inductively Coupled Plasma-Mass Spectrometry

Specimen No.		2	---	---	---	Maximum permissible Limit (mg/kg)
Test Item	Detection limit	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Barium	0.1	ND	---	---	---	1
Cobalt	0.05	ND	---	---	---	0.05
Copper	0.5	ND	---	---	---	5
Iron	1.0	ND	---	---	---	48
Lithium	0.1	ND	---	---	---	0.6
Manganese	0.1	ND	---	---	---	0.6
Zinc	1.0	ND	---	---	---	5
Aluminum	0.1	ND	---	---	---	1
Nickel	0.01	ND	---	---	---	0.02
Conclusion		PASS	---	---	---	

Note:

mg/kg=milligram per kilogram

ND= Not Detected



DETAILED RESULTS:

Regulation (EC) No 1935/2004, (EU) No 10/2011- Phthalates content

Test Method: CPSC-CH-C1001-09.4
 Analytical Method: Gas Chromatography with Mass Spectrometry

Specimen No	1	2	---	---	---	Max.Permissible Limit (% m/m)
Test Item CAS No.	Result (% m/m)	Result (% m/m)	Result (% m/m)	Result (% m/m)	Result (% m/m)	
DBP 84-74-2	ND	ND	---	---	---	0.05
BBP 85-68-7	ND	ND	---	---	---	0.1
DEHP 117-81-7	ND	ND	---	---	---	0.1
DINP 68515-48-0	ND	ND	---	---	---	0.1
DIDP 68515-49-1	ND	ND	---	---	---	0.1
DEHA 103-23-1	ND	ND	---	---	---	
DAP 131-17-9	ND	ND	---	---	---	
Conclusion	PASS	PASS	---	---	---	

Note:

DBP= Dibutyl phthalate, BBP= Butyl benzyl phthalate, DEHP=Di-2-ethylhexyl phthalate, DINP= Di-iso-nonyl phthalate, DIDP= Di-iso-decyl phthalate, DEHA= Bis-(2-ethylhexyl) adipate, DAP= Phthalic acid, diallyl ester
 % m/m = Percent by mass
 LT = Less than
 ND = Not detected (Reporting Limit = 0.015 % m/m)



DETAILED RESULTS:

European Resolution ResAP(2004)5 on Silicones Used for Food Contact Applications - Overall Migration

Test Method: Regulation (EU) No. 10/2011 with its amendments ANNEX II and ANNEX V, EN 1186-3:2002 (Total Immersion Method)

Specimen No.			3	---	---	Limit (mg/dm ²)
Test Simulant	Test Condition		Result (mg/dm ²)	Result (mg/dm ²)	Result (mg/dm ²)	
	Temp.	Duration				
10% Ethanol	70 °C	2hours	ND	---	---	10
3% Acetic acid	70 °C	2hours	ND	---	---	10
Conclusion			PASS	---	---	

Note:

Temp. = Temperature

°C = Degree Celsius

mg/dm² = Milligrams per square decimeter

LT = Less than

ND = Not detected (Reporting Limit = 3 mg/dm²)

Unless specified, 1st migration is reported.



DETAILED RESULTS:

Commission Regulation (EU) No. 10/2011 with its amendments, Specific Migration - Primary Aromatic Amines^φ

Test Method: Regulation (EU) No. 10/2011 with its amendments ANNEX II and ANNEX V, EN 13130-1:2004 (Total Immersion Method)

Analytical Method: Liquid Chromatography with Tandem Mass Spectrometry (LC-MSMS)

Test Condition:

Simulant: 3% Acetic acid Temperature: 70°C Duration: 2h

Specimen No.	1	2	---	RL (mg/kg)	Migratable Limit (mg/kg)
Test Item	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)		
2,4,5-Trimethylaniline(2,4,5-TMA)	ND	ND	---	0.002	
2,4-Dimethylaniline(2,4-DMA)	ND	ND	---	0.002	
2,4-Toluenediamine(2,4-TDA)	ND	ND	---	0.002	
2,6-Dimethylaniline(2,6-DMA)	ND	ND	---	0.002	
2,6-Toluenediamine(2,6-TDA)	ND	ND	---	0.002	
2-Methoxy-5-Methylaniline(2-M-5-MA)	ND	ND	---	0.002	
3,3-Dimethylbenzidine(3,3-DMB)	ND	ND	---	0.002	
4,4-Diaminodiphenylether(4,4-DPE)	ND	ND	---	0.002	
4,4'-Methylenedianiline(4,4-MDA)	ND	ND	---	0.002	
4,4-Methylenedi-o-toluidine(4,4-MDoT)	ND	ND	---	0.002	
4-Aminobiphenyl(4-ABP)	ND	ND	---	0.002	
4-Chloro-Aniline(4-CA)	ND	ND	---	0.002	
4-Chloro-o-Toluidine(4-CoT)	ND	ND	---	0.002	
Aniline(ANL)	ND	ND	---	0.002	
4-Methoxy-mphenylenediamine(4-M-mPDA)	ND	ND	---	0.002	
Benzidine(BNZ)	ND	ND	---	0.002	
M-Phenylenediamine(m-PDA)	ND	ND	---	0.002	
O-Anisidine(o-ASD)	ND	ND	---	0.002	
O-Toluidine(O-T)	ND	ND	---	0.002	
P-Phenylenediamine(p-PDA)	ND	ND	---	0.002	



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1,5-Diaminenaphthalene(1,5-DAN)	ND	ND	---	0.002	
Specific migration of primary aromatic amines (total)	ND	ND	---	--	0.01
Conclusion	PASS	PASS	---		

Note:

°C = Degree Celsius

mg/kg = Milligrams per kilogram foodstuff

LT = Less than

ND = Not detected. Result value is less than reporting limit (RL).

1st migration is reported.



SPECIMEN DESCRIPTION:

Specimen No.	Specimen Description	Location
1	Transparent plastic	Lid(cup style)
2	Black plastic	Lid(bottle style)
3	Translucent soft plastic	Sealing ring(cup style)
4	Silvery metal	Interior(cup style)



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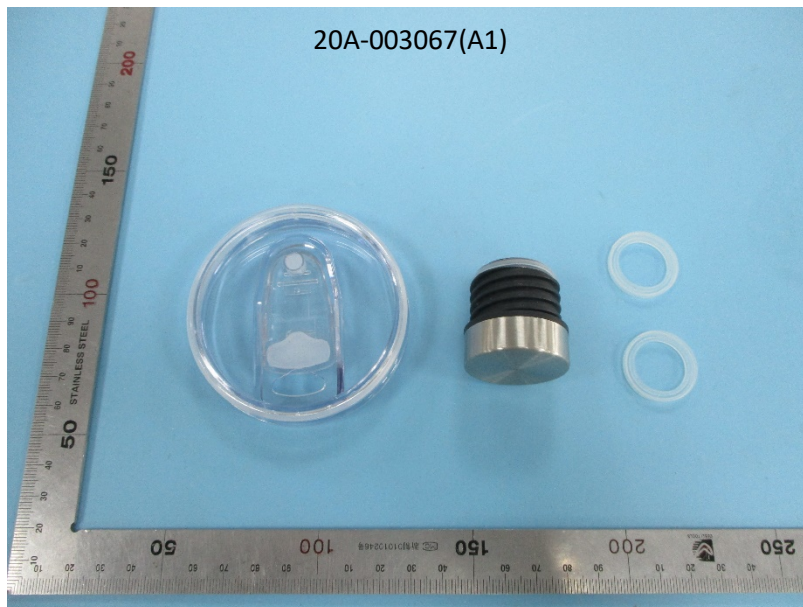
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SAMPLE PHOTO:



SAMPLE PHOTO:



-End Report-

