



TEST REPORT

Test Report # 19A-002116-1 Date of Report Issue: May 7, 2019
Date of Sample Received: April 28, 2019 Pages: Page 1 of 13

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: Sport drinking bottle
Model/style No.: MO8933,MO7851,MO7852
Main Material: PE,silicone,TPR
Buyer: Mid Ocean Brands B.V.
Supplier: 100396
Country of Distribution: Europe
Testing Period: 04/29/2019-05/07/2019

OVERALL RESULT:

PASS

Refer to page 2 for test result summary and appropriate notes.

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*The test result(s) and conclusion(s) in this report relate to the sample(s) tested as described herein.
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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	Regulation (EC) No 1935/2004, (EU) No 10/2011, its amendment (EU) 2016/1416 and Res AP(2004)5- 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 -Specific migration of Bisphenol A



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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.	3	4	5	1+2	---	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	ND	---	500
Conclusion	PASS	PASS	PASS	PASS	---	

Note:

mg/kg = Milligrams per kilogram

LT = Less than

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

Composite results are based on specimen of least mass resulting in highest potential concentration.





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.	3	4	5	1+2	---	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	ND	---	100
Conclusion	PASS	PASS	PASS	PASS	---	

Note:

mg/kg = Milligrams per kilogram

LT = Less than

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

Composite results are based on specimen of least mass resulting in highest potential concentration.



**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.		3	4	5	Limit (mg/kg)
Test Item	CAS No.	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Dibutyl phthalate (DBP)	84-74-2	ND	ND	ND	1000
Benzyl butyl phthalate (BBP)	85-68-7	ND	ND	ND	1000
Di-(2-ethylhexyl) phthalate (DEHP)	117-81-7	ND	ND	ND	1000
Diisobutyl phthalate (DIBP)	84-69-5	ND	ND	ND	1000
Sum of DBP, BBP, DEHP, DIBP		ND	ND	ND	1000
Di-n-octyl phthalate (DnOP)	117-84-0	ND	ND	ND	
Diisononyl phthalate (DINP)	28553-12-0 68515-48-0	ND	ND	ND	
Diisodecyl phthalate (DIDP)	26761-40-0 68515-49-1	ND	ND	ND	
Sum of DnOP, DINP, DIDP		ND	ND	ND	1000
Conclusion		PASS	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)



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

**Regulation (EC) No 1935/2004, (EU) No 10/2011, its amendment (EU) 2016/1416 and Res AP(2004)5-
Overall migration**

Test method: EN1186-1:2002: for selection of conditions and test methods
EN1186-3:2002: aqueous food simulants by total immersion
EN1186-9:2002: aqueous food simulants by article filling

Specimen No.		1	3	4	Maximum permissible Limit (mg/dm ²)
Simulant used	Test condition	Result (mg/dm ²)	Result (mg/dm ²)	Result (mg/dm ²)	
3% acetic acid	2 hours at 70°C	ND	ND	ND	10
50% ethanol	2 hours at 70°C	ND	ND	ND	10
Conclusion		PASS	PASS	PASS	

Specimen No.		5	---	---	Maximum permissible Limit (mg/dm ²)
Simulant used	Test condition	Result (mg/dm ²)	Result (mg/dm ²)	Result (mg/dm ²)	
3% acetic acid	2 hours at 70°C	ND	---	---	10
50% ethanol	2 hours at 70°C	ND	---	---	10
Conclusion		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.		4	5	---	---	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	ND	---	---	1
Cobalt	0.05	ND	ND	---	---	0.05
Copper	0.5	ND	ND	---	---	5
Iron	1.0	ND	ND	---	---	48
Lithium	0.1	ND	ND	---	---	0.6
Manganese	0.1	ND	ND	---	---	0.6
Zinc	1.0	ND	ND	---	---	24
Aluminum	0.1	0.7	0.1	---	---	1
Nickel	0.01	ND	ND	---	---	0.02
Conclusion		PASS	PASS	---	---	

Note:

mg/kg=milligram per kilogram

ND= Not Detected





DETAILED RESULTS:

Regulation (EC) No 1935/2004, (EU) No 10/2011 -Specific migration of Bisphenol A

Test method: EN 13130-1:2004 & DD CEN/TS 13130-13:2005

Specimen No.		1	3	4	5	---	Limit (mg/kg)
Test Item	Test condition	Result (mg/kg)					
Bisphenol A (BPA)	70°C, 2h 3% Acetic acid	ND	ND	ND	ND	---	0.05
Conclusion		PASS	PASS	PASS	PASS	---	

Note :

mg/kg = milligram per kilogram = ppm

ND = Not Detected (Reporting Limit= 0.05mg/kg)





SPECIMEN DESCRIPTION:

Specimen No.	Specimen Description	Location
1	Black soft plastic	Suction nozzle (black style)
2	White soft plastic	Suction nozzle (white style)
3	Translucent soft plastic	Sealing ring (all styles)
4	Red plastic	Bottle (red style)
5	Black plastic	Lid (black style)





SAMPLE PHOTO:



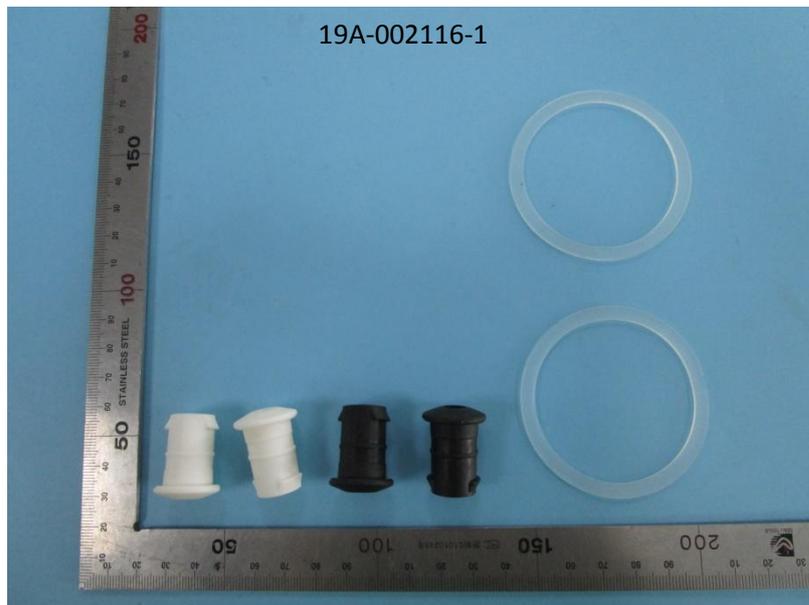


SAMPLE PHOTO:





SAMPLE PHOTO:



-End Report-

