TEST REPORT

Test Report #	19A-005294-2-S1	Date of Report Issue:	September 17, 2019
Date of Sample Received:	September 2, 2019	Pages:	Page 1 of 15

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:	Aluminum bottle		
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.:	MO9805/MO8287/MO9350		
Composition/Main Material:	aluminum		
Buyer Name:	Mid Ocean Brands B.V.		
Supplier Name:	100396		
Testing Period:	09/03/2019-09/09/2019,09/12/2019-09/17/2019		

OVERALL RESULT: **PASS**

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

HANGZHOU ASIAINSPECTION TESTING TECHNOLOGY CO., LTD

Kevin Lee
Technical Manager

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Test Report #	19A-005294-2-S1	Date of Report Issue:	September 17, 2019
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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 Paints and Surface Coatings
PASS	[+]Regulation (EC) No. 1907/2006 REACH Annex XVII, Item 23 Cadmium in Paints and Surface Coatings
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 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 -Specific migration of Bisphenol A
PASS	Regulation (EC) No 1935/2004 and Council of Europe Resolution CM Res(2013)9 on metals and alloys used in food contact materials and articles - Specific release of heavy metals

Remark:

1)Test results are transferred from test report no. 19A-005294-1-S1 date: 09/17/2019

2)[+]Revised information and supersedes the previous report no. 19A-005294-2 date: 09/09/2019

DETAILED RESULTS:

Regulation (EC) No. 1907/2006 REACH Annex XVII, Item 63 Lead in Paints and Surface Coatings

Test Method: CPSC-CH-E1003-09.1
Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	5	6	7	8	9	**Limit (mg/kg)**
Test Item	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Total Lead (Pb)	20	28	62	ND	ND	**500**
Conclusion	PASS	PASS	PASS	PASS	PASS	

Specimen No.	10	---	---	---	---	**Limit (mg/kg)**
Test Item	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Total Lead (Pb)	41	---	---	---	---	**500**
Conclusion	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 Paints and Surface Coatings

Test Method: ASTM F963-17 Clause 8.3.1
Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	5	6	7	8	9	**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	ND	**100**
Conclusion	PASS	PASS	PASS	PASS	PASS	

Specimen No.	10	---	---	---	---	**Limit (mg/kg)**
Test Item	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Total Cadmium (Cd)	ND	---	---	---	---	**100**
Conclusion	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	---	---	---	**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	---	---	---	**100**
Conclusion	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	---	---	**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)

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	---	---	Maximum permissible Limit (mg/dm²)
Simulant used	Test condition	Result (mg/dm²)	Result (mg/dm²)	Result (mg/dm²)	
10% ethanol	2 hours at 70°C	ND	---	---	10
3% acetic acid	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-Optical Emission 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 -Specific migration of Bisphenol A

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

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

Note :
mg/kg = milligram per kilogram = ppm
ND = Not Detected (Reporting Limit= 0.05mg/kg)

DETAILED RESULTS:

Regulation (EC) No 1935/2004 and Council of Europe Resolution CM Res(2013)9 on metals and alloys used in food contact materials and articles - Specific release of heavy metals

Test method: Sample preparation in 0.5%(5g/L) citric acid at 70°C for 2hours, ISO 17294-2:2016
Analytical Method: Inductively Coupled Plasma-Mass Spectrometry

Specimen No:	3					
Test Item(s)	Unit	MDL	1st + 2nd Migration		3rd 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	0.1	ND	1.75	ND	0.25
Cobalt (Co)	mg/kg	0.01	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
Magnesium(Mg)	mg/kg	0.1	ND	---	ND	---
Manganese (Mn)	mg/kg	0.5	ND	12.6	ND	1.8
Molybdenum (Mo)	mg/kg	0.05	ND	0.84	ND	0.12
Nickel (Ni)	mg/kg	0.05	ND	0.98	ND	0.14
Silver (Ag)	mg/kg	0.05	ND	0.56	ND	0.08
Tin*3 (Sn)	mg/kg	5	ND	700	ND	100
Titanium(Ti)	mg/kg	0.1	ND	---	ND	---
Vanadium (V)	mg/kg	0.005	ND	0.07	ND	0.01
Zinc (Zn)	mg/kg	0.5	ND	35	ND	5
Arsenic (As)	mg/kg	0.001	ND	0.014	ND	0.002
Barium (Ba)	mg/kg	0.1	ND	8.4	ND	1.2
Beryllium (Be)	mg/kg	0.005	ND	0.07	ND	0.01
Cadmium (Cd)	mg/kg	0.001	ND	0.035	ND	0.005
Lead (Pb)	mg/kg	0.005	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
Conclusion	PASS					

Note:
(1) mg/kg =milligram per kilogram
(2) SRL = Specific Release Limit
(3) *1 Compliance is established on the result from the third migration test for repeated used articles.
(4) *2 Meantime, the sum of the results of the first and second tests should not exceed 7 times the SRL
(5) *3 Except in field of application under Regulation (EC) No.1881/2006.(canned food container)

DETAILED RESULTS:

Regulation (EC) No 1935/2004 and Council of Europe Resolution CM Res(2013)9 on metals and alloys used in food contact materials and articles - Specific release of heavy metals

Test method: Sample preparation in 0.5%(5g/L) citric acid at 70°C for 2hours, ISO 17294-2:2016
Analytical Method: Inductively Coupled Plasma-Mass Spectrometry

Specimen No:	4					
Test Item(s)	Unit	MDL	1st + 2nd Migration		3rd 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	0.1	ND	1.75	ND	0.25
Cobalt (Co)	mg/kg	0.01	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
Magnesium(Mg)	mg/kg	0.1	ND	---	ND	---
Manganese (Mn)	mg/kg	0.5	ND	12.6	ND	1.8
Molybdenum (Mo)	mg/kg	0.05	ND	0.84	ND	0.12
Nickel (Ni)	mg/kg	0.05	ND	0.98	ND	0.14
Silver (Ag)	mg/kg	0.05	ND	0.56	ND	0.08
Tin*3 (Sn)	mg/kg	5	ND	700	ND	100
Titanium(Ti)	mg/kg	0.1	ND	---	ND	---
Vanadium (V)	mg/kg	0.005	ND	0.07	ND	0.01
Zinc (Zn)	mg/kg	0.5	ND	35	ND	5
Arsenic (As)	mg/kg	0.001	ND	0.014	ND	0.002
Barium (Ba)	mg/kg	0.1	ND	8.4	ND	1.2
Beryllium (Be)	mg/kg	0.005	ND	0.07	ND	0.01
Cadmium (Cd)	mg/kg	0.001	ND	0.035	ND	0.005
Lead (Pb)	mg/kg	0.005	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
Conclusion	PASS					

Note:
(1) mg/kg =milligram per kilogram
(2) SRL = Specific Release Limit
(3) *1 Compliance is established on the result from the third migration test for repeated used articles.
(4) *2 Meantime, the sum of the results of the first and second tests should not exceed 7 times the SRL
(5) *3 Except in field of application under Regulation (EC) No.1881/2006.(canned food container)

SPECIMEN DESCRIPTION:

Specimen No.	Specimen Description	Location
1	Black plastic	Lid(all styles)
2	Translucent soft plastic	Sealing ring(all styles)
3	Golden metal	Ring of bottle mouth(all styles)
4	Silvery metal	Interior
5	Red coating	Main body(red style)
6	Blue coating	Main body(blue style)
7	Black coating	Main body(black style)
8	Silvery coating	Main body(silvery style)
9	Green coating	Main body(green style)
10	White coating	Main body(white style)

SAMPLE PHOTO:

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SAMPLE PHOTO:

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SAMPLE PHOTO:

-End Report-