

TEST REPORT

Test Report # 20A-000189-2 Date of Report Issue: January 14, 2020
Date of Sample Received: January 9, 2020 Pages: Page 1 of 11

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: Sports 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.: MO8819
Composition/Main Material: PP,PE,TPR
Buyer Name: Mid Ocean Brands B.V.
Supplier Name: 100396
Testing Period: 01/09/2020-01/14/2020

OVERALL RESULT:

PASS

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

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Kevin Lee

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Test(s) marked with 'φ' was subcontracted to external laboratory.

The test result(s) and conclusion(s) in this report relate only to the sample(s) as received and method /regulation section(s) tested as described herein.

If it is not further specified in the report, the decision rule for stating conformity is based on the QIMA decision rule.

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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 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	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

Remark: Test results are transferred from test report no. 20A-000189-1 date: 01/14/2020



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	4	---	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)



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	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.	4	---	---	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:

Client's requirement, Bisphenol A content

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

Sample No.:	1	2	3	4	---	Client's limit (mg/kg)
Test Item	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Bisphenol A (BPA)	ND	ND	ND	ND	---	Not Detected
Conclusion	PASS	PASS	PASS	PASS	---	

Note:
 mg/kg=milligram per kilogram
 ND=Not Detected(Reporting limit = 1mg/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/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)
 Report the third migration result for repeated use articles.



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

EN1186-9:2002: aqueous food simulants by article filling

Specimen No.		2	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	

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.		2	3	---	---	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	---	---	5
Aluminum	0.1	ND	ND	---	---	1
Nickel	0.01	ND	ND	---	---	0.02
Conclusion		PASS	PASS	---	---	

Note:

mg/kg=milligram per kilogram

ND= Not Detected



SPECIMEN DESCRIPTION:

Specimen No.	Specimen Description	Location
1	Black soft plastic	Nozzle(black style)
2	Black plastic	Lid(black style)
3	Black plastic	Main body(black style)
4	Translucent soft plastic	Seal ring(black style)



SAMPLE PHOTO:



-End Report-

