



**CENTRE OF TESTING SERVICE
INTERNATIONAL**

OPERATE ACCORDING TO ISO/IEC 17025

TEST REPORT

Test Report Number : CNB3180530-00254-F-R4

**CTS (Ningbo) Testing Service Technology Co., Ltd.
Fl.1 & 8 West, Bldg. B, No. 66, Qingyi Rd., Hi-Tech Zone, Ningbo, Zhejiang, China
PHONE +86-574-87912121 FAX +86-574-87907993**



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1 General Information**1.1 Application Details**

Name : Mid Ocean Brands B.V
Address : 7/F., Kings Tower, 111 King Lam Street, Cheung Sha Wan, Kowloon, Hong Kong
Contact : /
Telephone : +852-29982344
Fax : +852-29982305
Mobile telephone : /
Email : /

1.2 Manufacturer & Buyer

Manufacturer name : Mid Ocean Brands B.V
Address : 7/F., Kings Tower, 111 King Lam Street, Cheung Sha Wan, Kowloon, Hong Kong
Contact : /
Telephone : +852-29982344
Fax : +852-29982305
Mobile telephone : /
Email : /
Buyer name : MID OCEAN HONGKONG LIMITED

1.3 Description of the Test Item

Sample name : Lunch box, mug, tumbler, Reusable mug bamboo/pp with spoon
Model No. : MO9425, MO9426, MO9427, MO9832
Brand name : /
Condition of sample(s) : EFFECTIVE

2 Test Results**2.1 General Information****2.1.1 Sample Receiving Date**

May 30, 2018, Jun. 14, 2018 and Aug. 16, 2019

2.1.2 Testing Period

May 30, 2018 to Aug. 22, 2019

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2.1.3 Test Requested

- 1) In accordance with German Food, Articles of Daily Use and Feed Code of September 1, 2005(LFGB), Section 30, 31 and 35, Council of Europe Resolution AP(2004)5, European Commission Directive 1935/2004/EC and Regulation (EU) No.10/2011 of 14 January 2011, Regulation (EU) No.2016/1416, Regulation (EU) 2017/752 and BfR recommendation.
 - 1-1) For material: Plastics and Silicone – Overall migration test.
 - 1-2) For material: Plastics – Specific migration of heavy metal
 - 1-3) For material: Bamboo – Pentachlorophenol (PCP) content.
 - 1-4) For material: Bamboo – Extractable Formaldehyde content.
 - 1-5) For material: Bamboo – Melamine specific migration testRemark: Selected test items as requested by applicants.
- 2) As specified by applicant, to determine the Lead content in the submitted sample in accordance with Lead content requirement in ANNEX XVII of the REACH Regulation (EC) No.1907/2006 & Amendment No. 552/2009 (formerly known as Directive 76/769/EEC).
- 3) As specified by applicant, to determine the Cadmium content in the submitted sample in accordance with Cadmium content requirement in ANNEX XVII of the REACH Regulation (EC) No.1907/2006 & Amendment No. 552/2009 (formerly known as Directive 91/338/EEC).
- 4) As specified by applicant, to determine Phthalates content in the submitted sample in accordance with Phthalates content requirement in ANNEX XVII of the REACH Regulation (EC) No.1907/2006 & Amendment No. 552/2009 (formerly known as Directive 2005/84/EC).
- 5) As specified by applicant, to determine the Bisphenol-A (BPA) content of the sample(s).

2.1.4 Test Method

- 1-1)With reference to EN 1186-1 for selection of temperature and condition; total immersion with reference to EN 1186-3 for aqueous food simulants and EN 1186-2 for olive oil.
 - 1-2)With reference to Commission Regulation (EU) No.10/2011 of 14 January 2011 Annex III and Annex V for selection of simulant and conditions, EN13130-1:2004 for selection of test method, Samples were prepared at specific condition, followed by analysis using Inductively Coupled Argon Plasma Spectrometry.
 - 1-3)With reference to LFGB § 64 BVL B 82.02.8 – 2001.
 - 1-4)With reference to EN 1186-1 for selection of temperature and condition; With reference to EN 1186-9 for aqueous food simulants by article filling method. Analysis of the extractive was performed by colorimetric method.
 - 1-5) With reference to DIN CEN/TS 13130-27:2005
- 2) With reference to US EPA3050B
 - 3) With reference to EN1122:2001B
 - 4) With reference to EPA 3540C and EPA 8270D: Solvent extraction, followed by analysis using Gas Chromatography-Mass Spectrometry.
 - 5) With reference to US EPA 3540C-2007, Analysis was performed by HPLC-DAD.

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2.2 Results

1-1) Overall migration test

Simulant used	Temperature and condition	Limit (mg/dm ²)	Result		
			No.1	No.2	No.3
3% Acetic acid	70 deg. C, 2 hours	10	<3	<3	22*
50% Ethanol	70 deg. C, 2 hours	10	<3	<3	<3
Conclusion	--	--	Pass	Pass	Fail

- Note :
1. <=less than
 2. mg/dm² = milligram per square decimeter
 3. Test simulant was specified by client
 4. *The result was got from the third extraction duration

1-2) Specific migration of heavy metal

3% acetic acid at 70 deg. C for 2 hours

Test Item	Limit (mg/kg)	MDL (mg/kg)	Result (mg/kg)	
			No.1	No.2
Extractable Barium	1.0	0.5	N.D.	N.D.
Extractable Cobalt	0.05	0.02	N.D.	N.D.
Extractable Copper	5.0	1.0	N.D.	N.D.
Extractable Iron	48.0	2.0	N.D.	N.D.
Extractable Lithium	0.6	0.2	N.D.	N.D.
Extractable Manganese	0.6	0.2	N.D.	N.D.
Extractable Zinc	5.0	2.0	N.D.	N.D.
Extractable Aluminium	1.0	0.5	N.D.	N.D.
Extractable Nickel	0.02	0.02	N.D.	N.D.
Conclusion	--	--	Pass	Pass

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Note : 1. mg/kg = milligram per kilogram
2. N.D. = not detected (less than MDL)
3. The limit refers to Regulation (EU) No.10/2011, Regulation (EU) No.2016/1416 and Regulation (EU) 2017/752.

1-3) PCP Content

Test Item	Limit (mg/kg)	Result (mg/kg)	
		No.1	No.3
PCP Content	0.1	<0.1	<0.1
Conclusion	--	Pass	Pass

Note : 1. <=less than
2. mg/kg = milligram per kilogram

1-4) Extractable Formaldehyde

Test Item	Temperature and condition	Limit (mg/kg)	Result(mg/kg)		
			No.1	No.3	No.4
Extractable Formaldehyde	70 deg. C,2 hours	15	<3	<3	<3
Conclusion	--	--	Pass	Pass	Pass

Note : 1. mg/kg =milligram per kilogram of foodstuff in contact with
2. <=less than

1-5) Melamine specific migration test

Test Items	Unit	Limit	Test Results
			No.4
Melamine specific migration 3% Acetic Acid, 70°C, 2h	mg/kg	2.5	< 2.5
Conclusion	--	--	Pass

Note : 1. < = less than
2. mg/kg = milligram per kilogram

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2) Lead Content

Test Item(s)	Unit	Limit	Result (mg/kg)				Conclusion
			No.1	No.2	No.3	No.5	
Total Lead (Pb)	mg/kg	500	N.D.	N.D.	N.D.	N.D.	Pass

Note : 1. N.D. = not detected (less than 2mg/kg)
2. 1 mg/kg =1 ppm=0.0001%

3) Cadmium Content

Test Item(s)	Unit	Limit	Result (mg/kg)				Conclusion
			No.1	No.2	No.3	No.5	
Cadmium (Cd)	mg/kg	100	N.D.	N.D.	N.D.	N.D.	Pass

Note : 1. Specimens, which requested to determine Cadmium content, have been dissolved completely
2. N.D. = not detected (less than MDL)
3. 1mg/kg=1ppm=0.0001%

4) Phthalates Content

Item	CAS No.	Unit	Limit	Result (%)			
				No.1	No.2	No.3	No.5
DEHP (Di- (2-ethylhexyl) phthalate)	000117-81-7	%	--	N.D.	N.D.	N.D.	N.D.
DBP (Dibutyl phthalate)	000084-74-2	%	--	N.D.	N.D.	N.D.	N.D.
BBP (Benzyl butyl phthalate)	000085-68-7	%	--	N.D.	N.D.	N.D.	N.D.
Total	--	%	0.1	N.D.	N.D.	N.D.	N.D.
Conclusion	--	--	--	Pass	Pass	Pass	Pass

Item	CAS No.	Unit	Limit	Result (%)			
				No.1	No.2	No.3	No.5
DINP (Di-isononyl phthalate)	028553-12-0	%	--	N.D.	N.D.	N.D.	N.D.
DNOP (Di-n-octyl phthalate)	000117-84-0	%	--	N.D.	N.D.	N.D.	N.D.

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DIDP (Di-isodecyl phthalate)	026761-40-0	%	--	N.D.	N.D.	N.D.	N.D.
Total	--	%	0.1	N.D.	N.D.	N.D.	N.D.
Conclusion	--	--	--	Pass	Pass	Pass	Pass

Note : 1. 1mg/kg=1ppm=0.0001%
2. N.D. = not detected (<0.005%)

5) Bisphenol-A (BPA) content

Item	Unit	MDL	Result			
			No.1	No.2	No.3	No.5
BPA	mg/kg	0.1	N.D.	N.D.	N.D.	N.D.
Conclusion	--	--	Pass	Pass	Pass	Pass

Note : 1. N.D. = Not Detected (<MDL)
2. MDL = Method Detection Limit

Test Part Description :

No.1 : Beige cup of mixture of bamboo and PP
No.2 : Transparent silicone
No.3 : Beige lid of mixture of TPE, bamboo and PP
No.4 : Green bamboo fibre and PP
No.5 : Brown elastic tape

Note : 1. The tested part of the sample was specified by client.
2. The report is amended from the report CNB3180530-00254-F-R3.
The report CNB3180530-00254-F-R3 become invalid.
3. The ratio from volume of simulant/food contact area is 1L/6dm²

Written by:

Jessie

Inspected by:

Suzie

Approved by:

Jan



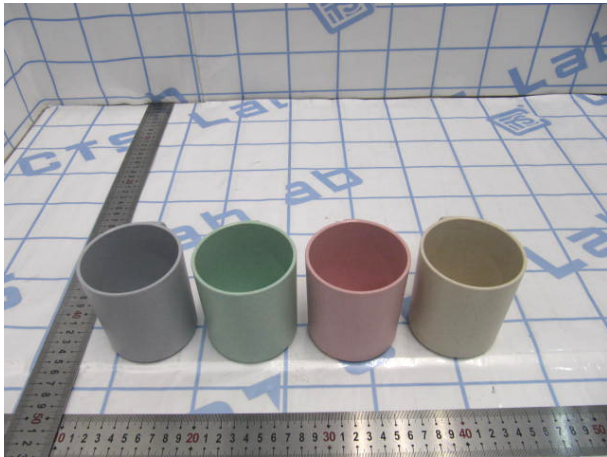
End of Report

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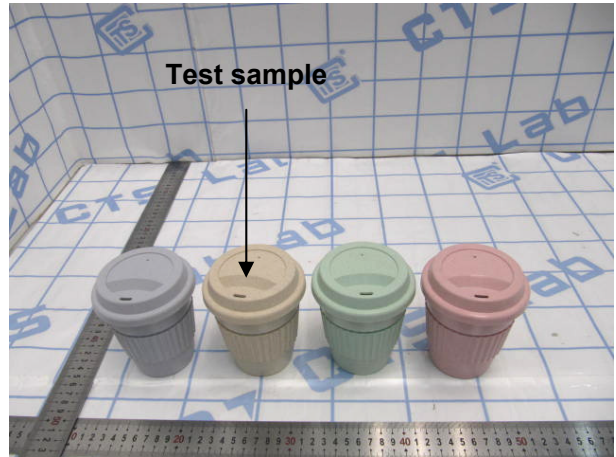
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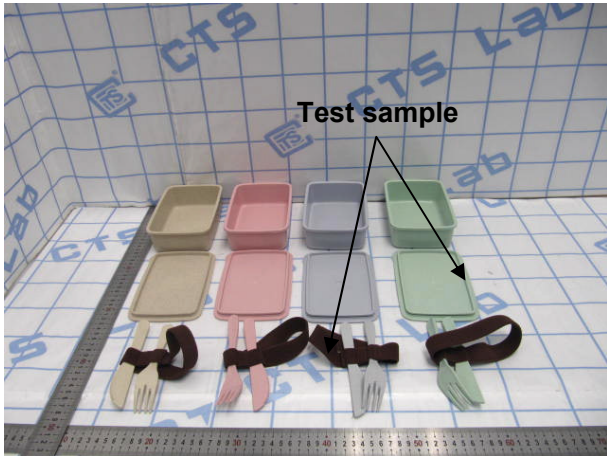
3 Sample Reference Photo



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