



TEST REPORT

Reference No. : WTF21F10116071C
Applicant : Mid Ocean Brands B.V.
Address : 7/F., Kings Tower, 111 King Lam Street, Cheung Sha Wan, Kowloon, Hong Kong
Manufacturer..... : 114276
Sample Name..... : Set of 3 lunch boxes with cotton bag
Model No...... : MO6477
Test Requested..... : 1) Determination of Cadmium content in the submitted sample in accordance with REACH regulation Annex XVII Entries 23 (EC) No. 1907/2006 and the amendment No. 552/2009, No. 494/2011, No. 835/2012 and (EU) 2016/217
2) Determination of Lead content in the submitted sample in accordance with REACH regulation Annex XVII Entries 63 (EC) No. 1907/2006 and the amendment No. 836/2012 and (EU) 2015/628
3) Determination of specified Phthalates content according to Annex XVII Items 51 & 52 of the REACH Regulation (EC) No. 1907/2006 & Amendment No. 552/2009 & No. 2018/2005
4) Determine the specified AZO Colorants contents in the submitted sample in according to the Entries 43 in Annex XVII of the REACH Regulation (EC) No.1907/2006 and the Amendment Regulation (EC) No.552/ 2009 & No.126/ 2013 (previously restricted under Directive 2002/61/EC).
5) Client's requirements - Dishwasher safe test.
Test Method : Please refer to next page (s)
Test Conclusion : Please refer to next page (s)
Date of Receipt sample..... : 2021-10-28
Date of Test..... : 2021-10-28 to 2021-11-15
Date of Issue : 2021-11-15
Test Result..... : Please refer to next page (s)

Remarks:

The results shown in this test report refer only to the sample(s) tested; this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

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**Test Result:****1) Cadmium (Cd)**

Test Method: With reference to IEC 62321-5:2013, the analysis was performed by ICP-OES.

Test Item	LOQ (mg/kg)	Results (mg/kg)			
		No.1	No.3+No.4	No.5+No.7	No.6
Cadmium(Cd)	2	ND	ND*	ND*	ND
Conclusion	--	Pass	Pass	Pass	Pass

Note:

- (1) mg/kg = milligram per kilogram
- (2) ND = Not Detected (lower than LOQ)
- (3) LOQ = Limit of quantitation
- (4) Limit of Cadmium according to REACH regulation Annex XVII Item 23 (EC) No. 1907/2006 and the amendment No. 552/2009, No. 494/2011 and No. 835/2012 and (EU) 2016/217.

Category	Limit (mg/kg)
Wet paint	100
Surface coating	1000
Plastic	100
Metal parts of jewellery and hair accessories	100

- (5) "*"=Results are calculated by the minimum weight of mixed components.

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2) Lead (Pb)

Test Method: With reference to IEC 62321-5:2013, the analysis was performed by ICP-OES.

Test Item	LOQ (mg/kg)	Results (mg/kg)					Limit (mg/kg)
		No.1	No.2	No.3+No.4	No.5+No.7	No.6	
Lead(Pb)	2	ND	ND	ND*	ND*	ND	500
Conclusion	--	Pass	Pass	Pass	Pass	Pass	--

Note:

- (1) mg/kg = milligram per kilogram
- (2) ND = Not Detected (lower than LOQ)
- (3) LOQ = Limit of quantitation
- (4) Limit of Lead was quoted from REACH regulation Annex XVII Item 63 (EC) No. 1907/2006 and the amendment No. 836/2012 and (EU) 2015/628.
- (5) "*"=Results are calculated by the minimum weight of mixed components.



3) Phthalates

Test Method: With reference to EN14372:2004, by Gas Chromatographic-Mass Spectrometric (GC-MS) analysis.

Test Items	LOQ (%)	Results (%)		Limit (%)
		No.1	No.6	
Benzyl butyl phthalate (BBP)	0.005	ND	ND	sum of four phthalates < 0.1
Di (2-ethyl hexyl)- phthalate (DEHP)	0.005	ND	ND	
Dibutyl phthalate (DBP)	0.005	ND	ND	
Diisobutyl phthalate (DIBP)	0.005	ND	ND	
Diisodecyl phthalate (DIDP)	0.01	ND	ND	sum of three phthalates < 0.1
Diisononyl phthalate (DINP)	0.01	ND	ND	
Di-n-octyl phthalate (DNOP)	0.005	ND	ND	
Conclusion	--	Pass	Pass	--

Note:

DBP= Dibutyl phthalate

BBP= Benzyl butyl phthalate

DEHP= Bis-(2-ethylhexyl)- phthalate

DINP= Di-isononyl phthalate

DNOP= Di-n-octyl phthalate

DIDP= Di-isodecyl phthalate

DIBP= Diisobutyl phthalate

(1) % = percentage by weight

(2) ND = Not Detected or lower than limit of quantitation

(3) LOQ = Limit of quantitation

(4) "<" = less than

(5) The above limit was quoted according to Annex XVII Items 51 & 52 of the REACH Regulation (EC) No. 1907/2006 & Amendment No. 552/2009 & No. 2018/2005 (formerly known as Directive 2005/84/EC) for phthalate content in toys and child care articles.



4) AZO

Test Method: With reference to BS EN ISO 14362-1: 2017 and BS EN ISO 14362-3: 2017, analysis was performed by Gas Chromatographic Mass Spectrometry (GC-MS)

No.	Amines Substances	CAS No.	Limit (mg/kg)	Result (mg/kg)
				No.3+No.4
1	4-Aminobiphenyl	92-67-1	30	ND*
2	Benzidine	92-87-5	30	ND*
3	4-chloro-o-Toluidine	95-69-2	30	ND*
4	2-Naphthylamine	91-59-8	30	ND*
5	o-Aminoazotoluene	97-56-3	30	ND*
6	2-Amino-4-nitrotoluene	99-55-8	30	ND*
7	p-Chloroaniline	106-47-8	30	ND*
8	2,4-diaminoanisol	615-05-4	30	ND*
9	4,4'-Diaminodiphenylmethane	101-77-9	30	ND*
10	3,3'-Dichlorobenzidine	91-94-1	30	ND*
11	3,3'-Dimethoxybenzidine	119-90-4	30	ND*
12	3,3'-Dimethylbenzidine	119-93-7	30	ND*
13	3,3'-Dimethyl-4,4'-diaminodiphenylmethane	838-88-0	30	ND*
14	p-cresinin	120-71-8	30	ND*
15	4,4'-Methylen-bis-(2-chloroaniline)	101-14-4	30	ND*
16	4,4'-Oxydianiline	101-80-4	30	ND*
17	4,4'-Thiodianiline	139-65-1	30	ND*
18	o-Toluidine	95-53-4	30	ND*
19	2,4-Toluylendiamine	95-80-7	30	ND*
20	2,4,5 – Trimethylaniline	137-17-7	30	ND*
21	o-anisidine	90-04-0	30	ND*
22	4-aminoazobenzene	60-09-3	30	ND*
23	2,4-Xylidin	95-68-1	30	ND*
24	2,6-Xylidin	87-62-7	30	ND*
Conclusion		--	--	Pass

Note:

- ND = Not Detected or lower than limit of quantitation
- mg/kg=Milligram per kilogram
- Limit of quantitation (mg/kg): Each 5mg/kg
- The CAS-numbers 97-56-3 and 99-55-8 are further reduced to CAS-numbers 95-53-4 and 95-80-7.
- AZO colorants that are able to form 4-aminoazobenzene, generate under the condition of this method aniline and 1,4-phenylenediamine. The presence of these colorants cannot be reliably ascertained without additional information, e.g. the chemical structure of the colorant used.
- The CAS-numbers 95-68-1 and 87-62-7 are not proscribed under REACH Regulation (EC) No 1907/2006



Test Specimen Description:

- No.1: White semi-transparent plastic cover
- No.2: Silvery metal bowl
- No.3: Beige drawstring
- No.4: Beige fabric bag
- No.5: White plastic hook of VELCRO
- No.6: Silvery thermal insulation material
- No.7: White plastic loop of VELCRO

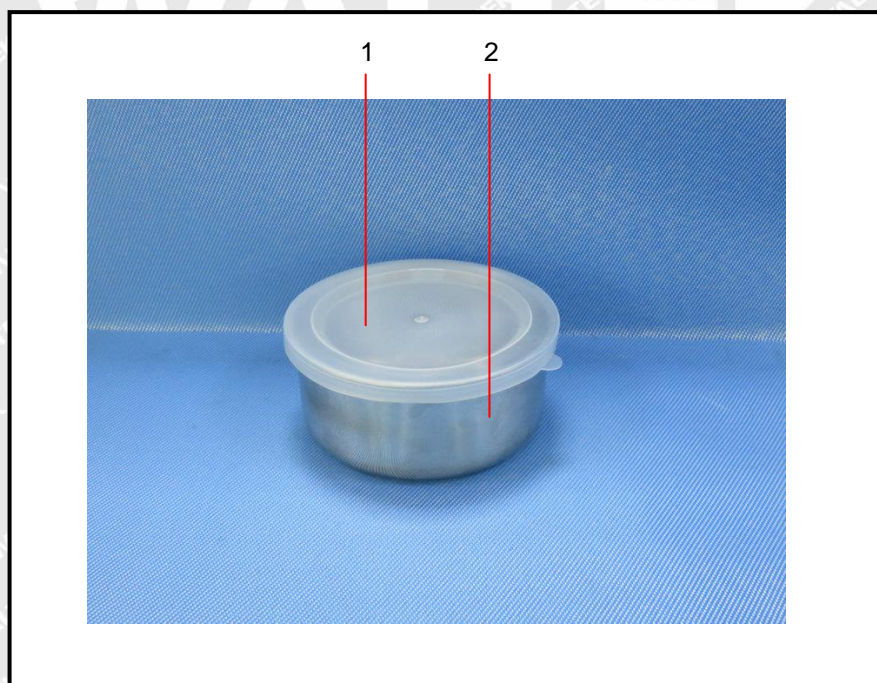
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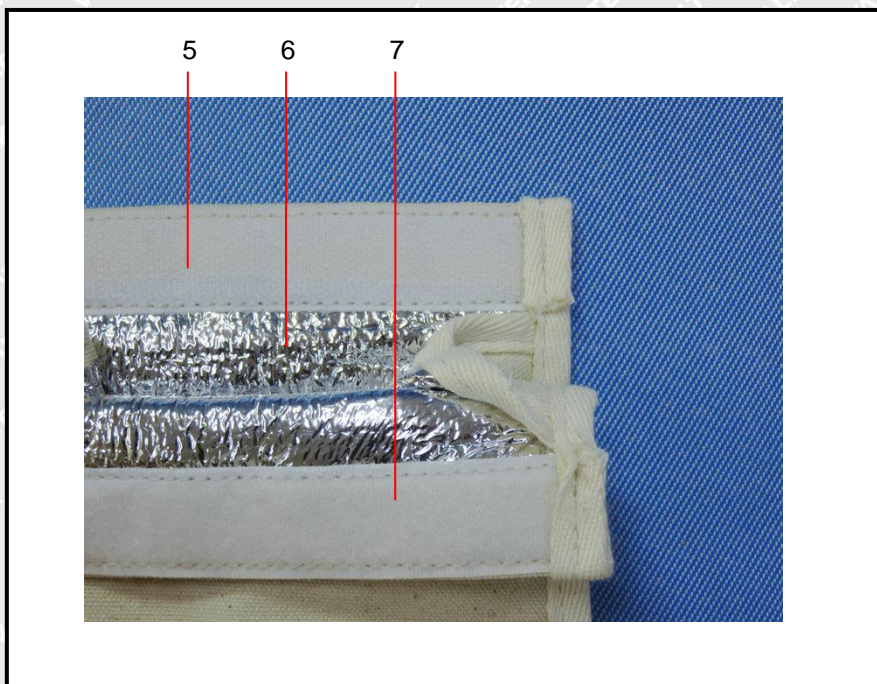
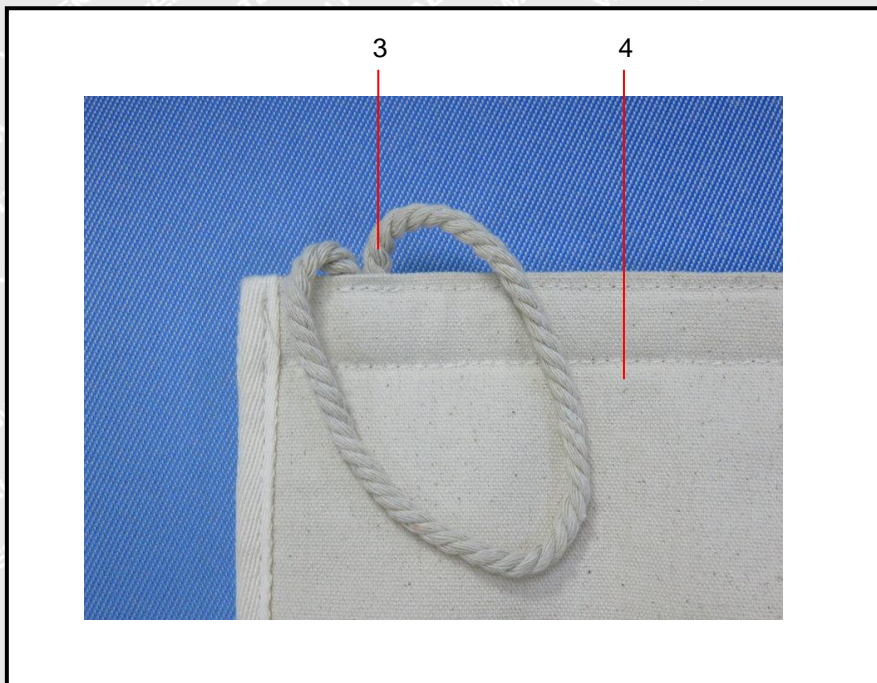


Sample photo:



Photographs of parts tested:







5) Dishwasher safe test (In House Method)

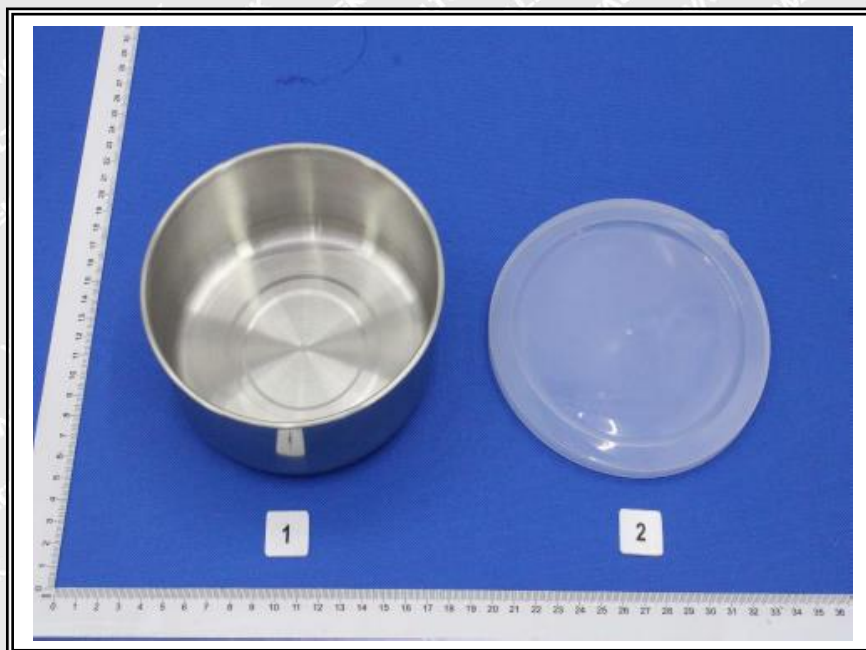
No. of Specimen	:	1 piece (Sample 1 & 2) for testing. Remains as control sample
No. of Cycles	:	(10) cycles
Dishwasher	:	Siemens SD6P1S
Detergent Brand	:	Cascade
Washing condition	:	
1. Cycle Time	:	~ 90 Minutes.
2. Cycle Water Temperature	:	Main Wash ~ 140°F (60°C) Rinse ~ 161°F (72°C)
3. Location inside dishwasher	:	Bottom rack
Testing Procedure	:	1) Visually inspect sample and record any aesthetic defects. 2) Load into the dishwasher and run the wash cycle as per the above condition. 3) Examine from a distance of ~ 30cm and record any difference as compared with the control sample. 4) Repeat 2) ~ 3) until the required number of cycle is completed.
Test Requirement	:	No discoloration, deformation, staining of water (water mark), or substantial deterioration of item's appearance and/or function.
Conclusion(s)	:	PASS 1. No noticeable change in appearance / size was found on the sample(s) 2. The tested sample(s) remained functional

Test Specimen Description:

No.1: Lunch box (Overall)

No.2: Lid (Overall)

Test sample photo:



===== End of Report =====