



TEST REPORT

Reference No...... : WTF19F12085061A1C
Applicant : Mid Ocean Brands B.V.
Address..... : 7/F., Kings Tower, 111 King Lam Street, Cheung Sha Wan, Kowloon, Hong Kong
Manufacturer : 106716
Sample Name..... : Set of 3 RPET mesh bags in RPET pouch
Model No...... : MO9898
Test Requested..... : 1) 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
2) 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
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) As requested by the applicant, to test Appearance After Washing in the submitted sample.
6) As requested by the applicant, to test Colour Fastness to Rubbing in the submitted sample.
Test Method..... : Please refer to next page (s)
Test Conclusion : Please refer to next page (s)
Date of Receipt sample.... : 2019-12-06 & 2019-12-26
Date of Test : 2019-12-06 to 2019-12-27
Date of Issue..... : 2019-12-30
Test Result : Please refer to next page (s)

Remarks:

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Prepared By:

Waltek Services (Foshan) Co., Ltd.

Address: No.13-19, 2/F., 2nd Building, Sunlink International Machinery City, Chencun, Shunde District, Foshan, Guangdong, China

Tel:+86-757-23811398 Fax:+86-757-23811381 E-mail:info@waltek.com.cn

Compiled by:

Rena Chen

Rena.Chen / Project Engineer

Approved by:



Swing Liang

Swing.Liang / Lab Manager

**Test Result:****1) Lead (Pb)**

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

Test Item	MDL (mg/kg)	Results (mg/kg)				Limit (mg/kg)
		No.1	No.2	No.3	No.4	
Lead(Pb)	2	ND	42	ND	ND	500
Conclusion	–	Pass	Pass	Pass	Pass	–

Note:

- (1) mg/kg = milligram per kilogram
- (2) ND = Not Detected (lower than MDL)
- (3) MDL = Method Detection Limit
- (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.

2) Cadmium (Cd)

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

Test Item	MDL (mg/kg)	Results (mg/kg)
		No.2
Cadmium(Cd)	2	ND
Conclusion	–	Pass

Note:

- (1) mg/kg = milligram per kilogram
- (2) ND = Not Detected (lower than MDL)
- (3) MDL = Method Detection Limit
- (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



3) Phthalates

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

Test Items	MDL (%)	Results (%)	Limit (%)
		No.2	
Benzyl butyl phthalate (BBP)	0.005	ND	sum of four phthalates < 0.1
Di (2-ethyl hexyl)- phthalate (DEHP)	0.005	ND	
Dibutyl phthalate (DBP)	0.005	ND	
Diisobutyl phthalate (DIBP)	0.005	ND	
Diisodecyl phthalate (DIDP)	0.01	ND	sum of three phthalates < 0.1
Diisononyl phthalate (DINP)	0.01	ND	
Di-n-octyl phthalate (DNOP)	0.005	ND	
Conclusion	--	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 Less than the method detection limit

(3) MDL=Method Detection Limit

(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
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 less than the method detection limit
- mg/kg=Milligram per kilogram
- Method Detection Limit (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



5) Appearance After Washing

Appearance After Washing			
(In house test method, Washing procedure: ISO 5077:2008/ ISO 6330:2012; No.4H; Using horizontal axis, front-loading type machine: Machine wash at 40 degree C with 2kg total dry mass (type III (100% polyester) ballast + specimen) and 'ECE' detergent (A) + sodium perborate + TAED, flat dry.)			
Observation of washed sample:			
After 5 Washes			
	Assessment	No.5+No. 6	Satisfactory
A	Colour change / loss using Grey Scale assessment (BS EN ISO 105 A02)	4-5	4 or better
B	Cross staining i.e. colour transfer onto component parts (BS EN ISO 105 A03)	4-5	4-5 or better
C	Print appearance	No significant change	No significant change
D	Fraying of fabrics and trims	Not frayed	Not frayed
E	Detachment of fastenings and trims	N/A	Not detached
F	Spirality / twisting of seams.	Nil	Less than 5%
G	Grinning / opening of seams. Measure seam opening	N/A	4mm or less
H	Pilling or fuzzing of surface fibres. Assess degree of pilling/fuzzing using BS EN ISO 12945-1 grades	N/A	3-4 or better
I	Pile loss or flattening of pile. Assess using Grey Scales	N/A	4 or better
J	Corrosion/damage to trim(s) including chipping / scratching of coatings	N/A	No corrosion / damage
K	Delamination of fused components	N/A	No delamination
L	Loss or damage to applied components	N/A	No loss or damage
M	Free running of zip fastening. Assess free running in both directions. Open and close open – ended zip fasteners	N/A	Runs freely in both direction
N	Differential shrinkage of components / parts. Assess for distorting, wrinkling or twisting of components and/or puckering of seams.	N/A	No change(s) observed
O	Unraveling / breaks in stitching	N/A	No unraveling or breaks observed
P	Wadding has moved within casing (outer and lining) and/or migrated through casing	N/A	No movement or migration observed
Q	Other change(s) observed	N/A	No change(s) observed
Conclusion		General appearance of washed sample is satisfactory	

Note:

- (1) Remark: Grey Scale Rating is based on the 5-step scale of 1 to 5, where 1 is bad and 5 is good.
- (2) N/A = Not Applicable

**6) Colour Fastness to Rubbing**

Colour Fastness to Rubbing		
(ISO 105 X12: 2001/Cor 2002; Size of rubbing finger: 16mm diameter.)		
	No.3	Client's Limit
Dry staining	3-4	2-3
Wet staining	4-5	2-3
Conclusion	Pass	--

Note:

(1) Grey Scale Rating is based on the 5-step scale of 1 to 5, where 1 is bad and 5 is good.

Test Specimen Description:

No.1: Semi-transparent fabric bag

No.2: Black plastic buckle

No.3: Black drawstring

No.4: Black-white fabric label

No.5: White plastic net bag

No.6: Red drawstring



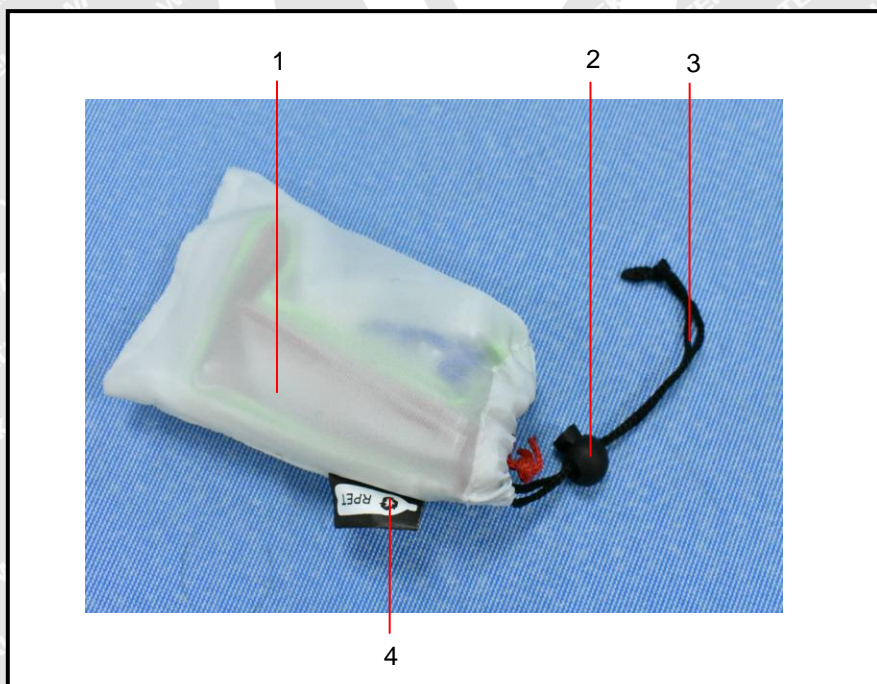
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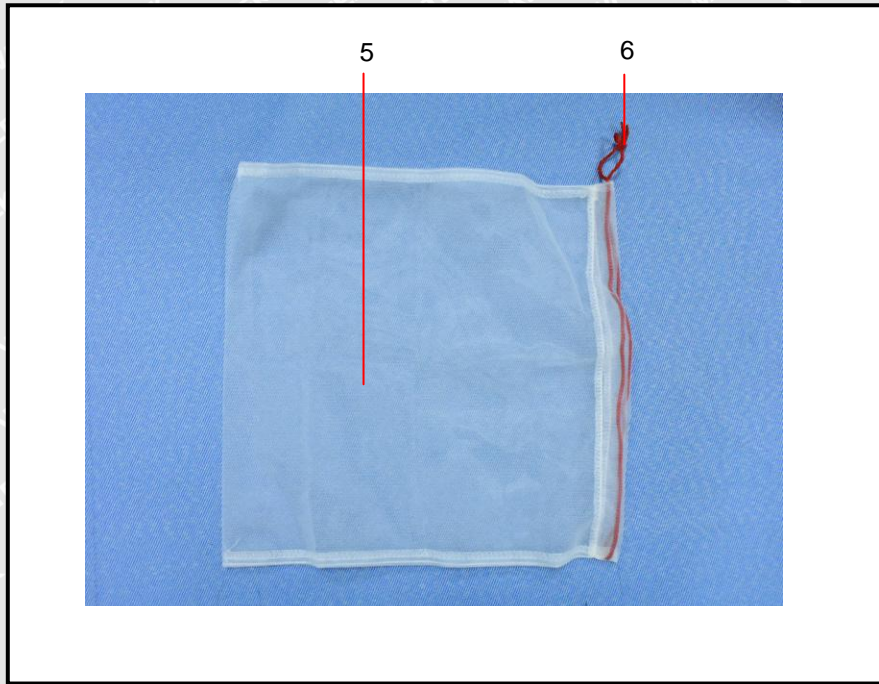


Sample photo:



Photographs of parts tested:





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

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