



CTS

CENTRE OF TESTING SERVICE

TEST REPORT

No.: C3190701025-CO

DATE: Jul. 11, 2019

PAGE: 1 of 7

APPLICANT:

MID OCEAN BRANDS B.V.

7/F, Kings Tower, 111 King Lam Street, Cheung Sha Wan, Kowloon, Hong Kong

DESCRIPTION OF SAMPLES:

Sample Name : NON WOVEN BAG W/5PCS MARKERS
 Model No. : MO8922
 Brand Name : /
 Manufacturer Name : 111041
 Buyer Name : /
 Country of Origin : /
 Country of Destination : /
 Sample Receiving Date : Jul. 2, 2019
 Testing Period : Jul. 2, 2019 to Jul. 11, 2019
 Test Requested : Please refer to next page(s)
 Test Method : Please refer to next page(s)
 Test Results : Please refer to next page(s)

CONCLUSION:

Tested Samples	Test Requested	Conclusion	Remark
Tested Component of Submitted Sample	AZO Compounds Content	Pass	-
	Cadmium Content	Pass	-
	Benzene Content	Pass	-
	Polycyclic Aromatic Hydrocarbon (PAHs) Content	Pass	-
	Phthalates Content	Pass	-
	Colourfastness to Rubbing	-	See Result

Note: The tested part of the sample was specified by client.
 The test conclusion was given based on the results of tested part.

Authorized by: CTS (Ningbo) Testing Service Technology Co., Ltd.

Jane.Ye

Lab Manager



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TEST RESULTS:

1) AZO Compounds Content

1) With reference to EN ISO 14362-1:2017, Analysis was performed by GC-MS.

2) p-Aminoazobenzene: With reference to EN ISO 14362-3:2017, Analysis was performed by GC-MS.

No.1	Sample Description	Result (mg/kg)	Limit (mg/kg)
		AZO	
	White non-woven cloth with black printing	N.D.	30

- Note :
1. N.D. = not detected (less than MDL)
 2. 1 mg/kg=1 ppm=0.0001%
 3. Method Detection Limit=5 mg/kg
 4. The limit refers to ANNEX XVII of the REACH Regulation (EC) No.1907/2006 & Amendment No. 552/2009 (formerly known as Directive 76/769/EEC and 2002/61/EC).
 5. List of prohibitive aromatic amines to be tested :

No.	Prohibitive Aromatic Amines	CAS NO.	No.	Prohibitive Aromatic Amines	CAS NO.
1	O-Toluidine	95-53-4	13	4-Aminobiphenyl	92-67-1
2	2,6-Xylidine	87-62-7	14	4-Aminoazobenzene	60-09-03
3	2,4-Xylidine	95-68-1	15	4,4'-oxydianiline	101-80-4
4	O-Anisidine	90-04-0	16	Benzidine	92-87-5
5	4-Chloroaniline	106-47-8	17	4,4'-methylenedianiline	101-77-9
6	P-Cresidine	120-71-8	18	O-Aminoazotoluene	97-56-3
7	2,4,5-Trimethylaniline	137-17-7	19	4,4'-methylenedi-o-toluidine	838-88-0
8	4-Chloro-o-toluidine	95-69-2	20	3,3'-Dimethylbenzidine	119-93-7
9	4-methyl-m-phenylenedia mine	95-80-7	21	4,4'-Thiodianiline	139-65-1
10	4-methoxy-m-phenylenedi amine	615-05-4	22	3,3'-Dichlorobenzidine	91-94-1
11	2-Naphthylamine	91-59-8	23	4,4'-Methylene-bis-(2-Chlor o-aniline)	101-14-4
12	5-nitro-o-toluidine	99-55-8	24	3,3'-Dimethoxybenzidine	119-90-4

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2) Cadmium Content

With reference to EN1122:2001B.

	Sample Description	Result (mg/kg)	Limit (mg/kg)
		Cadmium (Cd)	
No.1	White non-woven cloth with black printing	N.D.	100
No.2*	(Red/orange/yellow) plastic (mixed)	N.D.	100
No.3*	(Green/blue/white) plastic (mixed)	N.D.	100
No.4*	(Red/orange/yellow) ink (mixed)	N.D.	100
No.5*	(Green/blue) ink/refill (mixed)	N.D.	100

- Note :
- 1mg/kg=1ppm=0.0001%
 - N.D. = not detected (less than 2 mg/kg)
 - The limit refers to ANNEX XVII of the REACH Regulation (EC) No.1907/2006 & Amendment No. 552/2009 (formerly known as Directive 91/338/EEC).
 - *The Testing results are based on the mixing of the sample which applicant required, the mixed test results in this test report do not represent individual content of a single material.

3) Benzene Content

With reference to EPA 3550C:2007, analyzed by Gas Chromatograph-Mass Spectrometry (GC-MS).

	Sample Description	Result (mg/kg)	MDL (mg/kg)	Limit (mg/kg)
		Benzene		
No.1	White non-woven cloth with black printing	N.D.	5	5
No.2*	(Red/orange/yellow) plastic (mixed)	N.D.	5	5
No.3*	(Green/blue/white) plastic (mixed)	N.D.	5	5
No.4	Refill	N.D.	5	5

- Note :
- N.D.=Not Detected (less than MDL)
 - 1mg/kg=1ppm=0.0001%
 - MDL= Method Detect Limit
 - The limit refers to ANNEX XVII of the REACH Regulation (EC) No.1907/2006 & Amendment No. 552/2009

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5. *The Testing results are based on the mixing of the sample which applicant required, the mixed test results in this test report do not represent individual content of a single material.

4) Polycyclic Aromatic Hydrocarbon (PAHs) Content

With reference to EPA 3540C and EPA 8270D: Solvent extraction, followed by analysis using Gas Chromatography-Mass Spectrometry

Sample Description	No.1	White non-woven cloth with black printing			
	No.2*	(Red/orange/yellow) plastic (mixed)			
	No.3*	(Green/blue/white) plastic (mixed)			
Compounds	CAS Number	Result (mg/kg)			Maximum permissible limit (mg/kg)
		No.1	No.2*	No.3*	
(1) Benz(a)anthracene (BaA)	56-55-3	N.D.	N.D.	N.D.	<0.5
(2) Chrysene (CHR)	218-01-9	N.D.	N.D.	N.D.	<0.5
(3) Benzo(b)fluoranthene (BbF)	205-99-2	N.D.	N.D.	N.D.	<0.5
(4) Benzo(k)fluoranthene (BkF)	207-08-9	N.D.	N.D.	N.D.	<0.5
(5) Benzo(a)pyrene (BaP)	50-32-8	N.D.	N.D.	N.D.	<0.5
(6) Dibenz(a,h)anthracene (DBA)	53-70-3	N.D.	N.D.	N.D.	<0.5
(7) Benzo(j)fluoranthene (BjF)	205-82-3	N.D.	N.D.	N.D.	<0.5
(8) Benzo(e)pyrene (BeP)	192-97-2	N.D.	N.D.	N.D.	<0.5

- Note :
- 1 mg/kg=1 ppm=0.0001%.
 - Method detection limit of each of the individual compound is 0.1 mg/kg.
 - N.D. = not detected (less than MDL).
 - The limit refers to ANNEX XVII of the REACH Regulation (EC) No.1907/2006 & Amendment No. 552/2009 (REGULATION (EU) No 1272/2013).
 - *The Testing results are based on the mixing of the sample which applicant required, the mixed test results in this test report do not represent individual content of a single material.

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5) Phthalates Content

With reference to EPA 3540C and EPA 8270D: Solvent extraction, followed by analysis using Gas Chromatography-Mass Spectrometry

Sample Description		Result (%)				Total (%)	Maximum Allowable Limit (%)
		DEHP	DBP	BBP	DIBP		
No.1	White non-woven cloth with black printing	N.D.	N.D.	N.D.	N.D.	N.D.	0.1
No.2*	(Red/orange/yellow) plastic (mixed)	N.D.	N.D.	N.D.	N.D.	N.D.	0.1
No.3*	(Green/blue/white) plastic (mixed)	N.D.	N.D.	N.D.	N.D.	N.D.	0.1

Sample Description		Result (%)			Total (%)	Maximum Allowable Limit (%)
		DINP	DNOP	DIDP		
No.1	White non-woven cloth with black printing	N.D.	N.D.	N.D.	N.D.	0.1
No.2*	(Red/orange/yellow) plastic (mixed)	N.D.	N.D.	N.D.	N.D.	0.1
No.3*	(Green/blue/white) plastic (mixed)	N.D.	N.D.	N.D.	N.D.	0.1

- Note :
1. N.D.=Not Detected (<MDL)
 2. 1mg/kg=1ppm=0.0001%
 3. The limit refers to ANNEX XVII of the REACH Regulation (EC) No.1907/2006 & Amendment No. 552/2009 (formerly known as Directive 2005/84/EC).
 4. *The Testing results are based on the mixing of the sample which applicant required, the mixed test results in this test report do not represent individual content of a single material.
 5. The method detect limit for each Phthalates are:

Method Detect Limit		
Phthalates	DEHP (Di- (2-ethylhexyl)phthalate)	0.005%
	DBP (Dibutyl phthalate)	0.005%
	BBP (Benzyl butyl phthalate)	0.005%
	DIBP (Di-isobutyl phthalate)	0.005%
	DINP (Di-isononyl phthalate)	0.005%
	DNOP (Di-n-octyl phthalate)	0.005%
	DIDP (Di-isodecyl phthalate)	0.005%

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6) Colourfastness to Rubbing

(BS EN ISO 105-X12:2016)

No.1

White non-woven cloth with black printing

Length

Dry

4

Wet

1-2

Width

Dry

3-4

Wet

1-2

COLOURFASTNESS RATING

GRADE 5 NEGLIGIBLE OR NO CHANGE OR STAINING

GRADE 4 SLIGHTLY CHANGED OR STAINED

GRADE 3 NOTICEABLY CHANGED OR STAINED

GRADE 2 CONSIDERABLY CHANGED OR STAINED

GRADE 1 MUCH CHANGED OR STAINED

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SAMPLE REFERENCE PHOTO:



End of Report

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