

Test Report

Report No. : AGC05443240509-001

- **SAMPLE NAME** : Double walled flask
- MODEL NAME : MO9939
- **APPLICANT** : MID OCEAN BRANDS B.V
- **STANDARD(S)** : Please refer to the following page(s).
- DATE OF ISSUE : May 17, 2024

Attestation of Global Complance (Shenzhen) Std & Tech Co., Ltd.







: MID OCEAN BRANDS B.V

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: 6/F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community, Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China

Report on the submitted sample(s) said to be:

Sample Name	:	Double walled flask
Model	:	MO9939
Vendor code	:	114276
Country of Origin	:	CHINA
Country of Destination	:	EUROPE
Sample Received Date	:	May 10, 2024
Testing Period	:	May 10, 2024 to May 17, 2024
Test Requested	:	Selected test(s) as requested by client.

Approved by:

Suhongliang, Leon

Technical Director

AGC	Report No.: AGC05443240509-001
Test Requested:	Conclusion
Annex XVII of the REACH Regulation (EC) No 1907/2006, entry 63 - Lead(Pb) Content	Pass
Annex XVII of the REACH Regulation (EC) No 1907/2006, entry 23 -Cadmium(Cd) Content	Pass
Annex XVII of the REACH Regulation (EC) No 1907/2006, entry 51&52 - Phthalates Content	Pass
Annex XVII of the REACH Regulation (EC) No 1907/2006, entry 50 - Polycyclic-aromatic Hydrocarbons (PAHs) Content	Pass
Regulation 1935/2004/EC, Regulation(EU) No 10/2011 and its amendment Regulat 2020/1245 and Regulation (EU) 2018/213 and Council of Europe Resolution AP(20	
- Overall migration	Pass
- Specific migration of Bisphenol A(BPA)	Pass
- Bisphenol A(BPA) content	Pass
- Specific migration of Primary aromatic amines	Pass
- Specific migration of Heavy metals	Pass
DM-4B-COM-003-v01 for:	
- Volatile Organic Matter	Pass
- Peroxide value	Pass
- Specific Migration of Organotin (measured as Tin)	Pass
Regulation (EC) No 1935/2004, LFGB section 30 and Technical Guide on Metals a	und alloys used
in food contact materials of Council of Europe Resolution CM/Res (2013)9.	Pass
Considio microtion of beauty metal from metal and allows yeard in contact with from	

- Specific migration of heavy metal from metal and alloys used in contact with food

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		Report Revise Record	1
Report Version	Issued Date	Valid Version	Notes
/	May 17, 2024	Valid	Initial release



The photo of the sample



The photo of AGC05443240509-001 is for use only with the original report.

Test point	Test point description			
1-1+1-2	Grey plastic ring+Grey plastic cover			
1-3+1-4	Grey rubber+Transparent silicone ring			
1-5	Metal cover			
1-6	Metal inner bottle body			
1-7	Metal nails			
1-8	Grey plastic cover			
1-9	Transparent silicone ring			

Test Point Description



Note: N.D.=Not Detected (less than method detection limit), MDL = Method Detection Limit, 1mg/kg=0.0001%

Annex XVII of the REACH Regulation (EC) No 1907/2006, entry 63

- Lead(Pb) Content

Test Methods and Equipment: IEC 62321-5:2013; ICP-OES

Test Item(s)	Unit Limit MDL]	Test Result(s)		
Test Item(s)	Unit	LIIIII	MDL	1-1+1-2	1-3+1-4	1-5
Lead(Pb)	mg/kg	500	10	N.D.	N.D.	N.D.
Cor	Conformity	Conformity	Conformity			

Test Item(s)	Unit Limit	MDI	Test Result(s)		
Test Item(s)		Limit	MDL	1-6	1-7
Lead(Pb)	mg/kg	500	10	N.D.	N.D.
Co	Conformity	Conformity			

Remark:

1. As specified by client, the submitted samples were mixed to test, the test points: 1-1+1-2,1-3+1-4

Annex XVII of the REACH Regulation (EC) No 1907/2006, entry 23

-Cadmium(Cd) Content

Test Methods and Equipment: IEC 62321-5:2013; ICP-OES

Test Item(s)	Unit	Limit	MDL	Test Result(s)		
Test Item(s)	Unit	Limit	MDL	1-1+1-2	1-3+1-4	
Cadmium(Cd)	mg/kg	100	10	N.D.	N.D.	
	Conformity	Conformity				

Remark:

1. As specified by client, the submitted samples were mixed to test, the test points: 1-1+1-2,1-3+1-4

Annex XVII of the REACH Regulation (EC) No 1907/2006, entry 51&52

- Phthalates Content

Test Methods and Equipment: IEC 62321-8:2017; GC-MS

Test Item(s)	Unit	Limit	MDL	Test Result(s)	
Test Itell(s)		Liiiit	WIDL	1-1+1-2	1-3+1-4
Diisobutyl phthalate (DIBP) CAS:84-69-5	%	0.1	0.005	N.D.	N.D.
Dibutyl phthalate (DBP) CAS:84-74-2	%	0.1	0.005	N.D.	N.D.
Butylbenzyl phthalate (BBP) CAS:85-68-7	%	0.1	0.005	N.D.	N.D.
Di-(2-ethylhexyl) Phthalate (DEHP) CAS:117-81-7	%	0.1	0.005	N.D.	N.D.



Report No.: AGC05443240509-001

Test Item(s)	Unit	Limit	MDL	Test Result(s)	
Test Item(s)	Unit	Liiiit	MDL	1-1+1-2	1-3+1-4
Di-n-octyl phthalate (DNOP) CAS:117-84-0	%	/	0.005	N.D.	N.D.
Di-isononyl phthalate (DINP) CAS:28553-12-0, 68515-48-0	%	/	0.005	N.D.	N.D.
Di-isodecyl phthalate(DIDP) CAS:26761-40-0, 68515-49-1	%	/	0.005	N.D.	N.D.
Sum of DIBP +DBP+BBP+DEHP	%	0.1	/	N.D.	N.D.
Sum of DNOP+DINP+DIDP	%	0.1	/	N.D.	N.D.
Co	Conformity	Conformity			

Remark:

1. As specified by client, the submitted samples were mixed to test, the test points: 1-1+1-2,1-3+1-4

Limit requirements of Phthalates

Toys and childcare articles	Each of DEHP, DBP, BBP, DIBP is less than 0.1% or the sum of DEHP+DBP+BBP+DIBP is less than 0.1%
Toys and childcare articles which can be placed in the mouth by children	The sum of DINP+DIDP+DNOP is less than 0.1%

Annex XVII of the REACH Regulation (EC) No 1907/2006, entry 50

- Polycyclic-aromatic Hydrocarbons (PAHs) Content

Test Methods and Equipment: Afps GS 2019:01 PAK; GC-MS

Test Item(s)	Unit	Limit	MDL	Test Result(s)	
Test tieni(s)	Unit	Liiiit	NIDL	1-1+1-2	1-3+1-4
Benzo[a]pyrene(BaP)	mg/kg	1	0.1	N.D.	N.D.
Benzo[e]pyrene(BeP)	mg/kg	1	0.1	N.D.	N.D.
Benzo[a]anthracene(BaA)	mg/kg	1	0.1	N.D.	N.D.
Benzo[b]fluoranthene(BbF)	mg/kg	1	0.1	N.D.	N.D.
Benzo[j]fluoranthene(BjFA)	mg/kg	1	0.1	N.D.	N.D.
Benzo[k]fluoranthene(BkF)	mg/kg	1	0.1	N.D.	N.D.
Chrysene(CHR)	mg/kg	1	0.1	N.D.	N.D.
Dibenzo[a,h]anthracene(DBA)	mg/kg	1	0.1	N.D.	N.D.
Со	Conformity	Conformity			

Remark:

1. As specified by client, the submitted samples were mixed to test, the test points: 1-1+1-2,1-3+1-4



- Overall Migration

Report No.: AGC05443240509-001 Limit requirements of Polycyclic-aromatic Hydrocarbons (PAHs) (Unit: mg/kg)

Items	CAS No.	Extender oils or used for the production of tyres or parts of tyres	Any of their rubber or plastic components that come into direct as well as prolonged or short-term repetitive contact with the human skin or the oral cavity	Toys, including activity toys, and childcare articles, any of their rubber or plastic components that come into direct as well as prolonged or short-term repetitive contact with the human skin or the oral cavity
Benzo[a]pyrene(BaP)	50-32-8	≤1	≤ 1	≤ 0.5
Benzo[e]pyrene(BeP)	192-97-2	/	≤ 1	≤ 0.5
Benzo[a]anthracene(BaA)	56-55-3	/	≤ 1	≤ 0.5
Benzo[b]fluoranthene(BbF)	205-99-2	/	≤ 1	≤ 0.5
Benzo[j]fluoranthene(BjFA)	205-82-3	/	≤ 1	≤ 0.5
Benzo[k]fluoranthene(BkF)	207-08-9	/	≤ 1	≤ 0.5
Chrysene(CHR)	218-01-9	/	≤ 1	≤ 0.5
Dibenzo[a,h]anthracene(DBA)	53-70-3	/	≤ 1	≤ 0.5
Sum of BaP+ BeP+ BaA+ BbF+ BjFA+ BkF+ CHR+ DBA	/	≤ 10	/	/

<u>Regulation 1935/2004/EC, Regulation(EU) No 10/2011 and its amendment Regulation (EU) 2020/1245 and</u> <u>Regulation (EU) 2018/213 and Council of Europe Resolution AP(2004)5:</u>

	n wiigration			
Test point		Test	Conclusion	
		Overall migra		
		3% Acetic acid, 70°C,2h	50% Ethanol, 70°C,2h	
	1 st migration	N.D.	N.D.	
1-8	2 nd migration	N.D.	N.D.	Conformity
	3 rd migration	N.D.	N.D.	
]	Limit	10	10	/
I	MDL	5	5	/



	Test l		
Test point	Overall migration/ (mg/dm ²)		Conclusion
	3% Acetic acid, 70°C,2h	50% Ethanol, 70°C,2h	
1-9	N.D.	N.D.	Conformity
Limit	10	10	/
MDL	5	5	/

<u>Regulation 1935/2004/EC, Regulation(EU) No 10/2011 and its amendment Regulation (EU) 2020/1245 and</u> <u>Regulation (EU) 2018/213 and Council of Europe Resolution AP(2004)5:</u>

- Specific migration of Bisphenol A(BPA)

	Test Result	
Test point	Specific migration of Bisphenol A(BPA)/ (mg/kg)	Conclusion
	3% Acetic acid, 70°C,2h	
1-9	N.D. Confe	
Limit	0.05	/
MDL	0.02	/

<u>Regulation 1935/2004/EC, Regulation(EU) No 10/2011 and its amendment Regulation (EU) 2020/1245 and</u> <u>Regulation (EU) 2018/213 and Council of Europe Resolution AP(2004)5:</u>

-Bisphenol A(BPA) content					
Test Item	Bisphenol A (BPA)				
Limit (mg/kg)	Prohibited				
MDL(mg/kg)	0.1				
Test Method/ Instrument	EPA 3540C:1996& EPA 8321B:2007/ LC-MS-MS				

Test point	Test Result (mg/kg)	Conclusion	
Test point Bisphenol A (BPA)		Conclusion	
1-8	N.D.	Conformity	
1-9	N.D.	Conformity	

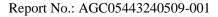


Regulation 1935/2004/EC, Regulation(EU) No 10/2011 and its amendment Regulation (EU) 2020/1245 and

Regulation (EU) 2018/213 and Council of Europe Resolution AP(2004)5:

- Specific migration of Primary aromatic amines

Test Item(s)	MDL (mg/kg)	Limit (mg/kg)
4-Aminobiphenyl	0.002	N.D.
Benzidine	0.002	N.D.
4-Chloro-o-Toluidine	0.002	N.D.
2-Naphthylamine	0.002	N.D.
4-amino-2',3-dimethylazobenzene	0.002	N.D.
5-Nitro-o-toluidine	0.002	N.D.
4-Chloroaniline	0.002	N.D.
4-Methoxy-m-phenylenediamine	0.002	N.D.
4,4'-Diaminodiphenylmethane	0.002	N.D.
3,3'-Dichlorobenzidine	0.002	N.D.
3,3'-Dimethoxybenzidine	0.002	N.D.
3,3'-Dimethybenzidine	0.002	N.D.
4,4'-Methylenedi-o-toluidine	0.002	N.D.
6-methoxy-m-toluidine	0.002	N.D.
4,4'-methylenebis[2-chloroaniline]	0.002	N.D.
4,4'-Oxydianiline	0.002	N.D.
4,4'-Thiodianiline	0.002	N.D.
2-Aminotoluene	0.002	N.D.
4-methyl-m-phenylenediamine	0.002	N.D.
2,4,5-Trimethylaniline	0.002	N.D.
2-Methoxyaniline	0.002	N.D.
4-Aminoazobenzene	0.002	N.D.
1,3 phenylenediamine	0.002	N.D.
Total of other primary aromatic amines	0.01	0.01



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	Test Result (mg/kg)				
		1-8			
Test Item(s)	1 st	2 nd	3 rd		
	migration	migration 3% Acetic acid	migration		
		70°C, 2h			
4-Aminobiphenyl	N.D.	N.D.	N.D.		
Benzidine	N.D.	N.D.	N.D.		
4-Chloro-o-Toluidine	N.D.	N.D.	N.D.		
2-Naphthylamine	N.D.	N.D.	N.D.		
4-amino-2',3-dimethylazobenzene	N.D.	N.D.	N.D.		
5-Nitro-o-toluidine	N.D.	N.D.	N.D.		
4-Chloroaniline	N.D.	N.D.	N.D.		
4-Methoxy-m-phenylenediamine	N.D.	N.D.	N.D.		
4,4'-Diaminodiphenylmethane	N.D.	N.D.	N.D.		
3,3'-Dichlorobenzidine	N.D.	N.D.	N.D.		
3,3'-Dimethoxybenzidine	N.D.	N.D.	N.D.		
3,3'-Dimethybenzidine	N.D.	N.D.	N.D.		
4,4'-Methylenedi-o-toluidine	N.D.	N.D.	N.D.		
6-methoxy-m-toluidine	N.D.	N.D.	N.D.		
4,4'-methylenebis[2-chloroaniline]	N.D.	N.D.	N.D.		
4,4'-Oxydianiline	N.D.	N.D.	N.D.		
4,4'-Thiodianiline	N.D.	N.D.	N.D.		
2-Aminotoluene	N.D.	N.D.	N.D.		
4-methyl-m-phenylenediamine	N.D.	N.D.	N.D.		
2,4,5-Trimethylaniline	N.D.	N.D.	N.D.		
2-Methoxyaniline	N.D.	N.D.	N.D.		
4-Aminoazobenzene	N.D.	N.D.	N.D.		
1,3 phenylenediamine	N.D.	N.D.	N.D.		
Total of other primary aromatic amines	N.D.	N.D.	N.D.		
Conclusion		Conformity			



Regulation 1935/2004/EC, Regulation(EU) No 10/2011 and its amendment Regulation (EU) 2020/1245:

- Specific migration of Heavy metals

	Test condition/ Equipment	MDL (mg/kg)	Test Result(s) (mg/kg)			
Test Item(s)			1 st migration	1-8 2 nd migration	3 rd migration	Limit (mg/kg)
Barium (Ba)		0.1	N.D.	N.D.	N.D.	1
Cobalt (Co)		0.01	N.D.	N.D.	N.D.	0.05
Copper (Cu)		0.25	N.D.	N.D.	N.D.	5
Iron (Fe)		0.25	N.D.	N.D.	N.D.	48
Lithium (Li)		0.1	N.D.	N.D.	N.D.	0.6
Manganese (Mn)		0.1	N.D.	N.D.	N.D.	0.6
Zinc (Zn)		0.25	N.D.	N.D.	N.D.	5
Aluminum (Al)		0.1	N.D.	N.D.	N.D.	1
Europium (Eu)		0.01	N.D.	N.D.	N.D.	/
Gadolinium (Gd)		0.01	N.D.	N.D.	N.D.	/
Lanthanum (La)		0.01	N.D.	N.D.	N.D.	/
Terbium (Tb)		0.01	N.D.	N.D.	N.D.	/
Sum(Eu+Gd+La+Tb)	3% Acetic acid/	/	N.D.	N.D.	N.D.	0.05
Antimony (Sb)	70°C, 2h/ ICP-OES/ IC	0.01	N.D.	N.D.	N.D.	0.04
Arsenic (As)		0.01	N.D.	N.D.	N.D.	N.D.
Cadmium (Cd)		0.002	N.D.	N.D.	N.D.	N.D.
Chromium (Cr)		0.01	N.D.	N.D.	N.D.	N.D.
Lead (Pb)		0.01	N.D.	N.D.	N.D.	N.D.
Mercury (Hg)		0.01	N.D.	N.D.	N.D.	N.D.
Nickel (Ni)		0.01	N.D.	N.D.	N.D.	0.02
Conclusion		/		Conformity		/
Ammonium (NH ₄ ⁺)		0.10	N.D.	N.D.	N.D.	/
Calcium (Ca)		0.01	1.323	0.145	N.D.	/
Magnesium (Mg)]	0.01	0.118	N.D.	N.D.	/
Potassium (K)]	0.01	0.091	N.D.	N.D.	/
Sodium (Na)		0.01	0.141	0.012	N.D.	/



				Unit: %	
Test item (a)	Test Condition	MDL	Result(s)	T :	
Test item(s)	Test Condition		1-9	Limit	
Volatile Organic Matter		0.1	0.31	0.5	
Conclusion	200°C, 4h	/	Conformity	/	

DM-4B-COM-003-v01 for:

- Peroxide value

			Unit: %	
Test How	MDI	Result(s)	Limit	
Test Item	MDL	1-9		
Peroxide value	0.2	N.D.	Absent	
Conclusion	/	Conformity	/	

DM-4B-COM-003-v01 for:

- Specific Migration of Organotin (measured as Tin)

	Test Result		
Test point	Specific Migration of Organotin (measured as Tin)/ (mg/kg)	Conclusion	
	3% Acetic acid, 70°C,2h		
1-9	N.D.	Conformity	
Limit	0.1	/	
MDL	0.01	/	



Regulation (EC) No 1935/2004, LFGB section 30 and Technical Guide on Metals and alloys used

in food contact materials of Council of Europe Resolution CM/Res (2013)9

- Specific migration of heavy metal from metal and alloys used in contact with food

Test Method: With reference to EDQM Technical Guide on Metals and alloys used in food contact materials 2013.

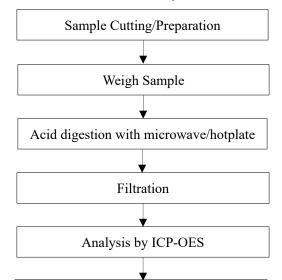
				Unit: mg/
Test Item(s)	Test condition/ Equipment	MDL	Test Result(s) 1 st + 2 nd extractives 1-6	Limit
Copper (Cu)	0.1	N.D.	28	
Iron (Fe)	0.1	N.D.	280	
Tin (Sn)	0.1	N.D.	700	
Chromium (Cr)		0.01	N.D.	1.75
Manganese (Mn)	0.5% Citric acid, 70°C, 2h ICP-OES	0.1	N.D.	12.6
Zinc (Zn)		0.1	N.D.	35
Aluminium (Al)		0.1	N.D.	35
Lithium (Li)		0.01	N.D.	0.336
Beryllium (Be)		0.005	N.D.	0.07
Vanadium (V)		0.005	N.D.	0.07
Nickel (Ni)		0.01	N.D.	0.98
Cobalt (Co)		0.01	N.D.	0.14
Arsenic (As)		0.002	N.D.	0.014
Molybdenum (Mo)		0.01	N.D.	0.84
Silver (Ag)		0.01	N.D.	0.56
Cadmium (Cd)		0.002	N.D.	0.035
Antimony (Sb)		0.01	N.D.	0.28
Mercury (Hg)		0.002	N.D.	0.021
Thallium (Tl)		0.0001	N.D.	0.0007
Lead (Pb)		0.01	N.D.	0.07
Conclusion		/	Conformity	/
Magnesium (Mg)		0.01	N.D.	/
Titanium (Ti)		0.01	N.D.	/

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	Test condition/ Equipment	MDL	Test Result(s)	Unit: mg
Test Item(s)			3 rd extractives 1-6	Limit
Copper (Cu)		0.1	N.D.	4
Iron (Fe)		0.1	N.D.	40
Tin (Sn)		0.1	N.D.	100
Chromium (Cr)		0.01	N.D.	0.25
Manganese (Mn)		0.1	N.D.	1.8
Zinc (Zn)		0.1	N.D.	5
Aluminium (Al)		0.1	N.D.	5
Lithium (Li)		0.01	N.D.	0.048
Beryllium (Be)		0.005	N.D.	0.01
Vanadium (V)		0.005	N.D.	0.01
Nickel (Ni)	0.5% Citric acid,	0.01	N.D.	0.14
Cobalt (Co)	70°C, 2h ICP-OES	0.01	N.D.	0.02
Arsenic (As)		0.002	N.D.	0.002
Molybdenum (Mo)		0.01	N.D.	0.12
Silver (Ag)		0.01	N.D.	0.08
Cadmium (Cd)		0.002	N.D.	0.005
Antimony (Sb)	-	0.01	N.D.	0.04
Mercury (Hg)		0.002	N.D.	0.003
Thallium (Tl)		0.0001	N.D.	0.0001
Lead (Pb)	-	0.01	N.D.	0.01
Conclusion		/	Conformity	/
Magnesium (Mg)		0.01	N.D.	/
Titanium (Ti)]	0.01	N.D.	/

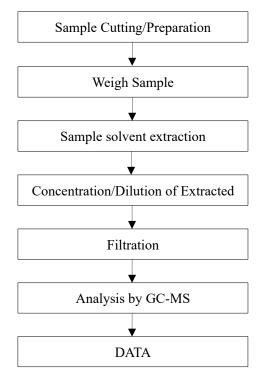




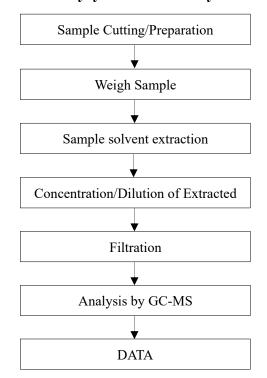
Test Flow Chart of Heavy Metal Content

Test Flow Chart of Phthalates

DATA







Test Flow Chart of Polycyclic-aromatic Hydrocarbons (PAHs)



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6. The Company will not be liable for or accept responsibility for any loss or damage however arising from the use of information contained in any of its Reports or in any communication whatsoever about its said tests or investigations.7. Clients wishing to use the Report in court proceedings or arbitration shall inform the Company to that effect prior to submitting the sample for testing.

8. The Company is not responsible for recalling the electronic version of the original report when any revision is made to them. The Client assumes the responsibility to providing the revised version to any interested party who uses them.
9. Subject to the variable length of retention time for test data and report stored hereinto as otherwise specifically required by individual accreditation authorities, the Company will only keep the supporting test data and information of the test report for a period of six years. The data and information will be disposed of after the aforementioned retention period has elapsed. Under no circumstances shall we provide any data and information which has been disposed of after retention period. Under no circumstances shall we be liable for damage of any kind, including (but not limited to) compensatory damages, lost profits, lost data, or any form of special, incidental, indirect, consequential or punitive damages of any kind, whether based on breach of contract of warranty, tort (including negligence), product liability or otherwise, even if we are informed in advance of the possibility of such damages.

*** End of Report ***