

# **Test Report**

Report No. : AGC05443230708-001

- SAMPLE NAME : Stainless steel lunch box
- MODEL NAME : MO6301
- APPLICANT : MID OCEAN BRANDS B.V
- **STANDARD(S)** : Please refer to the following page(s).
- **DATE OF ISSUE** : Aug. 21, 2023









#### : MID OCEAN BRANDS B.V

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

: 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	:	Stainless steel lunch box
Model	:	MO6301
Vendor code	:	104438
Country of Origin	:	CHINA
Country of Destination	:	EUROPE
Sample receiving state	:	Normal
Sample Received Date	:	Jul. 12, 2023
Testing Period	:	Jul. 12, 2023 to Aug. 21, 2023
Test Requested	:	Selected test(s) as requested by client.

Approved by: humanshia

Approved by : Jessie ling

Huangguohua

Vice Laboratory Manager

Liangdan, Jessie.Liang

Technical Director

Test Requested: Mechanical dishwashing safe test	Report No.: AGC05443230708-001 Conclusion 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 63 - Lead(Pb) 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 and Technical Guide on Metals and alloys used in food c of Council of Europe Resolution CM/Res(2013)9 - Specific migration of Heavy metal	ontact materials Pass
<ul> <li>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 (2)</li> <li>Overall migration</li> <li>Bisphenol A(BPA) content</li> <li>Specific migration of Bisphenol A(BPA)</li> <li>Specific migration of Formaldehyde</li> </ul>	
DM-4B-COM-003-v01 -Volatile Organic Matter - Peroxide value - Specific Migration of Organotin (measured as Tin)	Pass Pass Pass
Reference to Regulation 1935/2004/EC, Regulation(EU) No.10/2011& LFGB §64 Part 8 -Pentachlorophenol (PCP) content	BVL B 82.02 Pass

R



Report Revise Record					
Report Version	Notes				
/	Aug. 21, 2023	Valid	Initial release		



## The photo of the sample



The photo of AGC05443230708-001 is for use only with the original report.

## **Test Point Description**

Test point	Test point description
1-1	Black rubber buckle+Transparent silicone sealing
1-2	Wooden lid
1-3	Metal lunch box
1-4	Metal buckle
1-5	Metal locking plate
1-6	Transparent silicone sealing



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

## Mechanical dishwashing safe test

Test Result of mechanical dishwashing safe test:					
Requirements:For dishwasher safe test, if there is no noticeable change in appearance (e.g. color, size and shape) and					
function, it should be "PASS", Food, EN1388					
Sample No.:					
Test method: Refer BS EN 12875 -1-2005					
Washing temperature: 60°C					
Number of cycle: 10 cycles					
Number of tested sample: $1 \text{ pc}(s)$ .					
Number of control sample: 1 pc(s).					
For all tested plastic or metal articles:					
No visible change of color, gloss and clouding was found on the tested samples after wash.					
No visible deposit or iridescent layer was found on the tested samples after wash.					
No visible swelling, deformation, cracking, crazing or delamination was found on the tested samples after wash.					

## 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 tieni(s)	Unit	Liiiit	WIDL	1-1
Cadmium(Cd)	mg/kg	100	10	N.D.
Со	Conformity			

Remark:

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

Remark: The samples of the following test points were submitted on August 18, 2023:1-1

## 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)	Om	LIIIII	MDL	1-1	1-2	1-3
Lead(Pb)	mg/kg	500	10	N.D.	N.D.	N.D.
Conclusion			Conformity	Conformity	Conformity	



Test Item(s)	Unit Limit MDL	Test Result(s)			
Test tieth(s)	Unit	Liiiit	WIDL	1-4	1-5
Lead(Pb)	mg/kg	500	10	N.D.	N.D.
Co	nclusion			Conformity	Conformity

Remark:

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

Remark: The samples of the following test points were submitted on August 18, 2023:1-1

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

#### - Phthalates Content

Test Methods and Equipment: EN 14372:2004; GC-MS

Test Item(s)	Unit	Limit	MDL	Test Result(s) 1-1			
Diisobutyl phthalate (DIBP) CAS:84-69-5	%	0.1	0.01	N.D.			
Dibutyl phthalate (DBP) CAS:84-74-2	%	0.1	0.01	N.D.			
Butylbenzyl phthalate (BBP) CAS:85-68-7	%	0.1	0.01	N.D.			
Di-(2-ethylhexyl) Phthalate (DEHP) CAS:117-81-7	%	0.1	0.01	N.D.			
Di-n-octyl phthalate (DNOP) CAS:117-84-0	%	/	0.01	N.D.			
Di-isononyl phthalate (DINP) CAS:28553-12-0, 68515-48-0	%	/	0.01	N.D.			
Di-isodecyl phthalate(DIDP) CAS:26761-40-0, 68515-49-1	%	/	0.01	N.D.			
Sum of DIBP +DBP+BBP+DEHP	%	0.1	/	N.D.			
Sum of DNOP+DINP+DIDP	%	0.1	/	N.D.			
С	Conclusion						

Remark:

1. As specified by client, the submitted samples were mixed to test, the test points: 1-1 Remark:The samples of the following test points were submitted on August 18, 2023:1-1

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) 1-1
Benzo[a]pyrene(BaP)	mg/kg	1	0.1	N.D.
Benzo[e]pyrene(BeP)	mg/kg	1	0.1	N.D.
Benzo[a]anthracene(BaA)	mg/kg	1	0.1	N.D.
Benzo[b]fluoranthene(BbF)	mg/kg	1	0.1	N.D.
Benzo[j]fluoranthene(BjFA)	mg/kg	1	0.1	N.D.
Benzo[k]fluoranthene(BkF)	mg/kg	1	0.1	N.D.
Chrysene(CHR)	mg/kg	1	0.1	N.D.
Dibenzo[a,h]anthracene(DBA)	mg/kg	1	0.1	N.D.
Co	onclusion			Conformity

Remark:

1. As specified by client, the submitted samples were mixed to test, the test points: 1-1 Remark:The samples of the following test points were submitted on August 18, 2023:1-1

## Limit requirements of Polycyclic-aromatic Hydrocarbons (PAHs) (Unit: mg/kg)

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



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

				Unit: mg/kg
	Test condition/		Test Result(s)	
Test Item(s)	Equipment	MDL	1 <sup>st</sup> + 2 <sup>nd</sup> extractives	Limit
			1-3	
Barium (Ba)		0.1	N.D.	8.4
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)		0.1	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)	Artificial tap water, 70°C, 2h	0.005	N.D.	0.07
Nickel (Ni)	ICP-OES	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	/



			Test Result(s)	
Test Item(s)	Test condition/ Equipment	MDL	3 <sup>rd</sup> extractives	Limit
	Equipment		1-3	
Barium (Ba)		0.1	N.D.	1.2
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)	Artificial tap water,	0.005	N.D.	0.01
Nickel (Ni)	70°C, 2h ICP-OES	0.01	N.D.	0.14
Cobalt (Co)		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	/



	Test l	Result	
Test point	Overall migra	Conclusion	
	3% Acetic acid, 70°C,2h	50% Ethanol, 70°C,2h	
1-6	N.D.	N.D.	Conformity
Limit	10	10	/
MDL	5	5	/

Test result on specimen No.1-6 was resubmitted on Aug.14, 2023.

#### - Bisphenol A(BPA) content

Test Item	Bisphenol A (BPA)
Limit(Client's Requirement) (mg/kg)	Absent
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
1-6	N.D.	Conformity

Test result on specimen No.1-6 was resubmitted on Aug.14, 2023.

#### - 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	
1-6	N.D.	Conformity
Limit(Client's Requirement)	0.05	/
MDL	0.02	/

Test result on specimen No.1-6 was resubmitted on Aug.14, 2023.



Test point		Test Result	
		Specific migration of Formaldehyde/ (mg/kg)	Conclusion
		3% Acetic acid,70°C,2h	
	1 <sup>st</sup> migration	N.D.	Conformity
1-2	2 <sup>nd</sup> migration	N.D.	Conformity
	3 <sup>rd</sup> migration	N.D.	Conformity
	Limit	15	/
I	MDL	5	/

#### - Volatile Organic Matter

Unit: %

Test item(s)	Test Condition	MDL	Result(s) 1-6	Limit
Volatile Organic Matter	200°C, 4h	0.1	N.D.	0.5
Conclusion		/	Conformity	/

Test result on specimen No.1-6 was resubmitted on Aug.14, 2023.

#### - Peroxide value

Unit: %

Test Item	MDL	Result(s) 1-6	Limit
Peroxide value	0.2	N.D.	Absent
Conclusion	/	Conformity	/

Test result on specimen No.1-6 was resubmitted on Aug.14, 2023.



#### - 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	
1-6	N.D.	Conformity
Limit	0.1	/
MDL	0.01	/

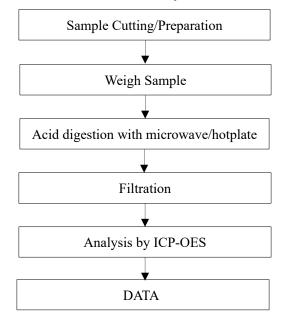
Test result on specimen No.1-6 was resubmitted on Aug.14, 2023.

#### -Pentachlorophenol (PCP) content

Test Item	Pentachlorophenol (PCP)
Limit (mg/kg)	0.15
MDL(mg/kg)	0.05
Test Method/ Instrument	ENISO15320-2011/ GC-MS

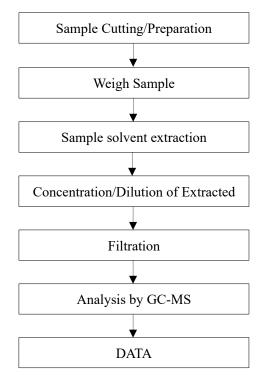
Test point	Test Result (mg/kg)	Conclusion
Test point	Pentachlorophenol (PCP)	Conclusion
1-2	N.D.	Conformity



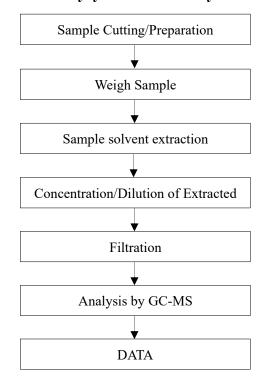


## **Test Flow Chart of Heavy Metal Content**

#### **Test Flow Chart of Phthalates**







## Test Flow Chart of Polycyclic-aromatic Hydrocarbons (PAHs)



# Conditions of Issuance of Test Reports

1. All samples and goods are accepted by the Attestation of Global Compliance (Shenzhen) Std & Tech Co., Ltd. (the "Company") solely for testing and reporting in accordance with the following terms and conditions. The company provides its services on the basis that such terms and conditions constitute express agreement between the company and any person, firm or company requesting its services (the "Clients").

2. Any report issued by Company as a result of this application for testing services (the "Report") shall be issued in confidence to the Clients and the Report will be strictly treated as such by the Company. It may not be reproduced either in its entirety or in part and it may not be used for advertising or other unauthorized purposes without the written consent of the Company. The Clients to whom the Report is issued may, however, show or send it, or a certified copy thereof prepared by the Company to its customer, supplier or other persons directly concerned. The Company will not, without the consent of the Clients, enter into any discussion or correspondence with any third party concerning the contents of the Report, unless required by the relevant governmental authorities, laws or court orders.

3. The Company shall not be called or be liable to be called to give evidence or testimony on the Report in a court of law without its prior written consent, unless required by the relevant governmental authorities, laws or court orders.

4. In the event of the improper use of the report as determined by the Company, the Company reserves the right to withdraw it, and to adopt any other additional remedies which may be appropriate.

5. Samples submitted for testing are accepted on the understanding that the Report issued cannot form the basis of, or be the instrument for, any legal action against the Company.

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 \*\*\*