

Test Report

Report No. : AGC05443240722-001

SAMPLE NAME : Stainless steel lunchbox

MODEL NAME : MO9967

APPLICANT: MID OCEAN BRANDS B.V.

STANDARD(S) : Please refer to the following page(s).

DATE OF ISSUE : Aug. 07, 2024

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





Applicant : MID OCEAN BRANDS B.V.

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

Test Site : 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 lunchbox

Model : MO9967
Vendor code : 114276
Country of Origin : CHINA
Country of Destination : EUROPE
Sample receiving state : Normal
Sample Received Date : Jul. 22, 2024

Testing Period : Jul. 22, 2024 to Aug. 07, 2024

Test Requested : Selected test(s) as requested by client.

Approved by: Len

Suhongliang, Leon

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Technical Director



- Phthalates Content

Report No.: AGC05443240722-001 Conclusion

Mechanical dishwashing safe test

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 23 -Cadmium(Cd) Content

Pass

Annex XVII of the REACH Regulation (EC) No 1907/2006, entry 43 - Aromatic Amines Azodyes (AZO) Content

Pass

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

Pass

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

Pass

- Polycyclic-aromatic Hydrocarbons (PAHs) Content

Pass

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

- Overall migration - Specific migration of Bisphenol A(BPA)

Pass Pass

- Bisphenol A(BPA) content

Pass

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

- Colour fastness to rubbing

- Volatile Organic Matter - Peroxide value

Pass **Pass**

- Specific Migration of Organotin (measured as Tin)

Pass

Regulation 1935/2004/EC and Council of Europe Resolution AP(2004)2

- Specific migration of Formaldehyde

Pass Pass

- Pentachlorophenol (PCP) content

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

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

Pass



Report Revise Record

Report No.: AGC05443240722-001

Report Version	Issued Date	Valid Version	Notes
/	Aug. 07, 2024	Valid	Initial release



The photo of the sample



The photo of AGC05443240722-001 is for use only with the original report.

Test Point Description

Test point	Test point description
1-1	Black elastic band
1-2	Transparent silicone ring
1-3	Bamboo fork
1-3+1-4+1-5	Bamboo fork+Bamboo knife+Bamboo lid
1-6	Metal lunch box



Note: N.D.=Not Detected (less than method detection limit), MDL = Method Detection Limit, 1mg/kg=0.0001% Unless otherwise stated, the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule (w=0) stated in ILAC-G8:09/2019/CNAS-GL015:2022.

Mechanical dishwashing safe test

Test Sample:1-6

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"

Sample No.:MO9967

Test method: Refer BS EN 12875 -1-2005

Washing temperature: 60°C Number of cycle: 10 cycles

Number of tested sample: 1 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.

Mechanical dishwashing safe test

Test Sample:1-2

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"

Sample No.:MO9967

Test method: Refer BS EN 12875 -1-2005

Washing temperature: 60°C Number of cycle: 10 cycles

Number of tested sample: 1 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 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)		Lillit	MDL	1-1	1-2
Lead(Pb)	mg/kg	500	10	N.D.	N.D.
Con	Conformity	Conformity			

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Tost Itom(s)	Unit	Limit	MDL	Test Result(s)	
Test Item(s)	Unit		MDL	1-3+1-4+1-5	1-6
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: 1-3+1-4+1-5

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)	T Lait	T imit	MDI	Test Result(s)
Test Item(s)	Unit	Limit	MDL	1-2
Cadmium(Cd)	mg/kg	100	10	N.D.
Co	Conformity			

Annex XVII of the REACH Regulation (EC) No 1907/2006, entry 43

- Aromatic Amines Azodyes (AZO) Content

Test Methods and Equipment: EN ISO 14362-1:2017; GC-MS

Test Item(s)	Unit	Limit	MDL	Test Result(s) 1-1
4-Aminobiphenyl CAS:92-67-1	mg/kg	30	5	N.D.
Benzidine CAS:92-87-5	mg/kg	30	5	N.D.
4-Chloro-o-toluidine CAS:95-69-2	mg/kg	30	5	N.D.
2-Naphthylamine CAS:91-59-8	mg/kg	30	5	N.D.
o-Aminoazotoluene CAS:97-56-3	mg/kg	30	5	N.D.
5-Nitro-o-toluidine CAS:99-55-8	mg/kg	30	5	N.D.
p-Chloroaniline CAS:106-47-8	mg/kg	30	5	N.D.

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Tel: +86-755 2523 4088 E-mail: agc@agccert.com Web: http://www.agccert.com/



Test Item(s)	Unit	Limit	MDL	Test Result(s)
	- Cint	Ziiiii	WIDE	1-1
4-Methoxy-m-phenylenediamine CAS:615-05-4	mg/kg	30	5	N.D.
4,4'-Diaminodiphenylmethane CAS:101-77-9	mg/kg	30	5	N.D.
3,3'-Dichlorobenzidine CAS:91-94-1	mg/kg	30	5	N.D.
3,3'-Dimethoxybenzidine CAS:119-90-4	mg/kg	30	5	N.D.
3,3'-Dimethybenzidine CAS:119-93-7	mg/kg	30	5	N.D.
4,4'-Methylenedi-o-toluidine CAS:838-88-0	mg/kg	30	5	N.D.
p-Cresidine CAS:120-71-8	mg/kg	30	5	N.D.
4,4'-Methylenebis[2-chloroaniline] CAS:101-14-4	mg/kg	30	5	N.D.
4,4'-Oxydianiline CAS:101-80-4	mg/kg	30	5	N.D.
4,4'-Thiodianiline CAS:139-65-1	mg/kg	30	5	N.D.
2-Aminotoluene CAS:95-53-4	mg/kg	30	5	N.D.
2,4-Toluylendiamine CAS:95-80-7	mg/kg	30	5	N.D.
2,4,5-Trimethylaniline CAS:137-17-7	mg/kg	30	5	N.D.
o-Anisidine CAS:90-04-0	mg/kg	30	5	N.D.
4-Aminoazobenzene CAS:60-09-3	mg/kg	30	5	N.D.
(Conformity			

Note: 4-aminoazobenzene: The EN ISO 14362-1:2017 or ISO 17234-1:2020 methods will enable further cleavage of 4-aminoazobenzene to aniline and / or 1,4-phenylenediamine. If aniline and / or 1,4-phenylenediamine are detected, 4-aminoazobenzene shall be further determined by EN ISO 14362-3:2017 or ISO 17234-2:2011.



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) 1-2
Diisobutyl phthalate (DIBP) CAS:84-69-5	%	0.1	0.005	N.D.
Dibutyl phthalate (DBP) CAS:84-74-2	%	0.1	0.005	N.D.
Butylbenzyl phthalate (BBP) CAS:85-68-7	%	0.1	0.005	N.D.
Di-(2-ethylhexyl) Phthalate (DEHP) CAS:117-81-7	%	0.1	0.005	N.D.
Di-n-octyl phthalate (DNOP) CAS:117-84-0	%	/	0.005	N.D.
Di-isononyl phthalate (DINP) CAS:28553-12-0, 68515-48-0	%	/	0.005	N.D.
Di-isodecyl phthalate(DIDP) CAS:26761-40-0, 68515-49-1	%	/	0.005	N.D.
Sum of DIBP +DBP+BBP+DEHP	%	0.1	/	N.D.
Sum of DNOP+DINP+DIDP	%	0.1	/	N.D.
Со	nclusion			Conformity

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) 1-2
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

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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	/	/

- Colour fastness to rubbing

Test Method: ISO 105-X12:2016

Rubbing finger: Cylinder

The time of conditioning as well as the atmospheric conditions during testing: 21.5 °C, 60 %R.H., 4 hrs

The percentage of soak of wet rubbing cloth: 95%~100% The long direction of the specimen: Endwise/ Crossrange

	Test Result			
Test point	Colour fastness to rubbing / (Grade)		Conclusion	
	Dry rubbing	Wet rubbing		
1-1	4-5	4-5	Conformity	
Limit (Client's Requirement)	≥2-3	≥2-3	/	

Note:

Colour Fastness Grade:

Grade 5 = No Colour Change (Best Grade)

Grade 1 = Colour Change Seriously (Bad Grade)

9 grades in gray sample card: 5, 4-5, 4, 3-4, 3, 2-3, 2, 1-2, 1.



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

- Overall Migration

		Test Result		
Test point	Overall migration/ (mg/kg)			Conclusion
	3% Acetic acid, 70°C,2h	50% Ethanol, 70°C,2h	Olive oil, 70°C,2h	
1-2	N.D.	N.D.	6.3	Conformity
Limit	60	60	60	/
MDL	5	5	5	/

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 Bisphenol A(BPA)

- Specific inigration of displicitor A()	<u> </u>	
	Test Result	
Test point	Specific migration of Bisphenol A(BPA)/ (mg/kg)	Conclusion
	3% Acetic acid, 70°C,2h	
1-2	N.D.	Conformity
Limit(Client's Requirement)	0.05	/
MDL	0.02	/

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

-Bisphenol A(BPA) content

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

Toot noint	Test Result (mg/kg)	Conclusion
Test point	Bisphenol A (BPA)	Conclusion
1-2	N.D.	Conformity



- Volatile Organic Matter

Unit: %

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Test item(s)	Test Condition	MDL -	Result(s)	Limit
	Test Condition		1-2	Lillit
Volatile Organic Matter	200°C, 4h	0.1	0.36	0.5
Conclusion		/	Conformity	/

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

- Peroxide value

Unit: %

Test Item	MDL	Result(s) 1-2	Limit
Peroxide value	0.2	N.D.	Absent
Conclusion	/	Conformity	1

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	
1-2	N.D.	Conformity
Limit	0.1	/
MDL	0.01	/



Regulation 1935/2004/EC and Council of Europe Resolution AP(2004)2

-Specific	migration	of Forma	ldehvde
-Specific	migi auon	oi r oi illa	iuciiyuc

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

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Regulation 1935/2004/EC and Council of Europe Resolution AP(2004)2

-Pentachlorophenol (PCP) content

Test Item	Pentachlorophenol (PCP)		
Limit (mg/kg)	0.15		
MDL(mg/kg)	0.05		
Test Method/Instrument	EN ISO 15320-2011/ GC-MS		

Tost maint	Test Result (mg/kg)	Conclusion
Test point	Pentachlorophenol (PCP)	Conclusion
1-3	N.D.	Conformity



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.

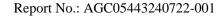
Unit: mg/kg

Test Item(s)	Test condition/ Equipment		Test Result(s)	Limit
		MDL	1 st + 2 nd extractives 1-6	
Copper (Cu)	0.1	N.D.	28	
Iron (Fe)		0.1	N.D.	280
Tin (Sn)		0.1	N.D.	700
Chromium (Cr)	0.5% Citric acid, 70°C, 2h ICP-OES	0.01	0.011	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)		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	0.034	/
Titanium (Ti)		0.01	N.D.	/



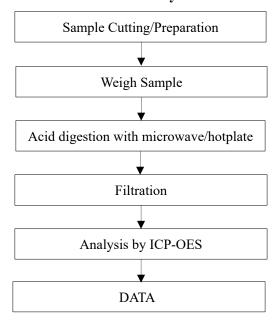
Unit: mg/kg

Test Item(s)	Test condition/ Equipment	MDL	Test Result(s)	Limit
			3 rd extractives 1-6	
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)	0.5% Citric acid, 70°C, 2h ICP-OES	0.005	N.D.	0.01
Vanadium (V)		0.005	N.D.	0.01
Nickel (Ni)		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	/
Magnesium (Mg)		0.01	N.D.	/
Titanium (Ti)		0.01	N.D.	/

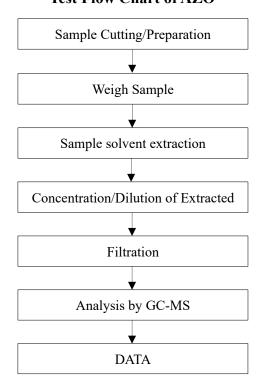


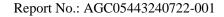


Test Flow Chart of Heavy Metal Content



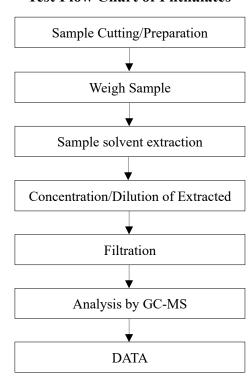
Test Flow Chart of AZO

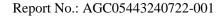






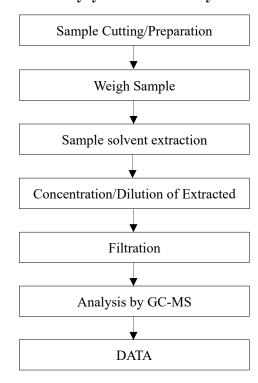
Test Flow Chart of Phthalates







Test Flow Chart of Polycyclic-aromatic Hydrocarbons (PAHs)





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*** End of Report ***