

# **Test Report**

Report No. : AGC05443220334-001S1

**SAMPLE NAME**: Harmonica in ABS with bamboo

MODEL NAME : MO6628

**APPLICANT**: MID OCEAN BRANDS B.V

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

**DATE OF** 

**ISSUE** : May 11, 2022

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





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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 : Harmonica in ABS with bamboo

Model : MO6628

Country of origin : CHINA

Country of destination : EUROPE

Vendor code : 114276

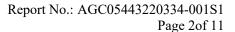
Sample Received Date : Mar.31, 2022

Testing Period : Mar.31, 2022 to May 10, 2022

Approved by: Jossie Liang

Liangdan, Jessie.Liang

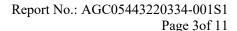
**Technical Director** 





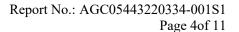
Report Revise Record

Report Version	Issued Date	Valid Version	Notes
/	May 10, 2022	Invalid	Initial release
S1	May 11, 2022	Valid	Modification of Formaldehyde Release of Limit





**Test Requested:** Conclusion 1. As specified by client, to determine the Phthalates content in the submitted sample(s) with reference to entry 51&52, Annex XVII of the REACH Regulation Pass (EC) No 1907/2006. 2. As specified by client, to determine the Cadmium(Cd) content in the submitted sample(s) with reference to entry 23, Annex XVII of the REACH Regulation (EC) Pass No 1907/2006. 3. As specified by client, to determine the Lead(Pb) content in the submitted sample(s) with reference to entry 63, Annex XVII of the REACH Regulation (EC) No Pass 1907/2006. 4. As specified by client, to determine the Formaldehyde Release in the submitted Pass sample(s). 5. As specified by client, the following items are determined in the submitted sample with reference to Regulation 1935/2004/EC, Regulation(EU) No 10/2011& (EU)2018/213& (EU) 2020/1245 for: - Overall Migration (3% Acetic acid, 50% ethanol) Pass - Specific migration of Acrylonitrile Pass Pass - Bisphenol A(BPA) content - Specific Migration of Aromatic Amines **Pass** - Specific Migration of Heavy metals **Pass** 6. As specified by client, the following items are determined in the submitted sample with reference to Regulation 1935/2004/EC, Regulation(EU) No 10/2011 for: Pentachlorophenol (PCP) Content **Pass** Specific Migration of Formaldehyde Pass





#### **Test Result:**

#### 1.Test Result of Phthalates Content

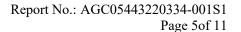
Test Item	Test Method/ Instrument	MDL	Limit
Diisobutyl phthalate(DIBP) (CAS No.: 84-69-5)		0.010%	
Dibutyl phthalate (DBP) (CAS No.: 84-74-2)		0.010%	Single<0.1%
Butylbenzyl phthalate (BBP) (CAS No.: 85-68-7)		0.010%	Sum<0.1%
Di-(2-ethylhexyl) Phthalate (DEHP) (CAS No.: 117-81-7)	EN 14372:2004/ GC-MS	0.010%	l
Di-n-octyl phthalate (DNOP) (CAS No.: 117-84-0)		0.010%	
Di-isononyl phthalate (DINP) (CAS No.: 28553-12-0;68515-48-0)		0.010%	Sum<0.1%
Di-isodecyl phthalate(DIDP) (CAS No.: 26761-40-0; 68515-49-1)		0.010%	

Test	Test result (%)									
	DIBP	DBP	BBP	DEHP	Sum(DIBP+DBP +BBP+DEHP)	DNOP	DINP	DIDP	Sum(DNOP+ DINP+DIDP)	
1-1	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	Conformity

# 2.Test Result of Cadmium(Cd)Content

Test Item	Cadmium(Cd) (CAS No.: 7440-43-9)				
Limit(mg/kg)	<100				
MDL(mg/kg)	10				
Test Method/ Instrument	IEC 62321-5:2013/ ICP-OES				

Tost point	Test result (mg/kg)	Conclusion	
Test point	Cadmium(Cd)	Conclusion	
1-1	N.D.	Conformity	





#### 3. Test Result of Lead(Pb)Content

Test Item	Lead(Pb) (CAS No.: 7439-92-1)				
Limit(mg/kg)	<500				
MDL(mg/kg)	10				
Test Method/ Instrument	IEC 62321-5:2013/ ICP-OES				

Tost maint	Test result (mg/kg)	Canalysian
Test point	Lead(Pb)	Conclusion
1-1	19	Conformity
1-2	N.D.	Conformity
1-3	N.D.	Conformity

# 4. Test result of Formaldehyde Release

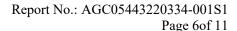
Test Item(s)	Formaldehyde Release				
Limit (Client's Requirement) (mg/kg)	80				
MDL (mg/kg)	1				
Test Method/ Equipment	EN717-3:1996/ UV-Vis				

Test point	Test result (mg/kg)	Conclusion	
-	Formaldehyde Release		
1-1	N.D.	Conformity	

#### Note:

mg/kg =milligram per kilogram
MDL = Method Detection Limit

N.D.=Not Detected(less than method detection limit)
%= percentage





#### 5.1 Test Result(s) of Overall Migration

Unit: mg/dm<sup>2</sup>

Test Solution	Test condition	MDL		Limit		
1 est solution			1 <sup>st</sup> extractives	2 <sup>nd</sup> extractives	3 <sup>rd</sup> extractives	
3% Acetic acid	70°C, 2h	5	N.D.	N.D.	N.D.	10
50% Ethanol		5	5.3	N.D.	N.D.	10
Conclusion	/	/		Conformity		/

**Note:** -MDL=method detection limit

-N.D.=not detected (less than method detection limit)

#### 5.2 Test result of migration of Acrylonitrile

Unit: mg/kg

Test Item(s)	Test condition/ Equipment	MDL	Result(s) 3%Acetic acid 1-1	Limit
Migration of Acrylonitrile	70°C, 2h / GC-NPD	0.01	N.D.	0.01
Conclusion	/	/	Conformity	/

**Note:** -MDL=method detection limit

-N.D.=not detected (less than method detection limit)

#### 5.3 Test Result(s) of Bisphenol A(BPA) content

Unit: mg/kg

Test Item(s)	Test Method/ Equipment	MDL	Result(s)	Limit
Bisphenol A(BPA) content	EPA 3540C:1996 EPA 8321B:2007 LC-MS-MS	1	N.D.	Absent
Conclusion	/	/	Conformity	/

**Note:** -MDL=method detection limit

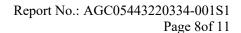
-N.D.=not detected (less than method detection limit)

- Test result on specimen No.1-1 was resubmitted on May 05, 2022.



# 5.4 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

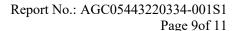




	Test Result(mg/kg)				
Test Item(s)	1-1				
	3% Acetic acid 70°C, 2h				
4-Aminobiphenyl	N.D.				
Benzidine	N.D.				
4-Chloro-o-Toluidine	N.D.				
2-Naphthylamine	N.D.				
4-amino-2',3-dimethylazobenzene	N.D.				
5-Nitro-o-toluidine	N.D.				
4-Chloroaniline	N.D.				
4-Methoxy-m-phenylenediamine	N.D.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

**Note:** -MDL=method detection limit

-N.D.=not detected (less than method detection limit)



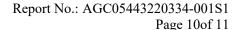


#### 5.5 Test Result(s) of Migration of Heavy metals

Test Item(s)	Test condition/	MDL (mg/kg)		Limit		
rest rem(s)	Equipment		1 <sup>st</sup> extractives	1-1 2 <sup>nd</sup> extractives	3 <sup>rd</sup> extractives	(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 <sub>4</sub> <sup>+</sup> )		0.10	N.D.	N.D.	N.D.	/
Calcium (Ca)		0.01	1.493	N.D.	N.D.	/
Magnesium (Mg)		0.01	0.088	N.D.	N.D.	/
Potassium (K)		0.01	0.140	N.D.	N.D.	/
Sodium (Na)		0.01	0.304	N.D.	N.D.	/

**Note:** -MDL=method detection limit

-N.D.=not detected (less than method detection limit)





### 6.1 Test Result(s) of Total Pentachlorophenol (PCP) content

Unit: mg/kg

Togt Itom	Test Method/	MDI	Test Result(s)	Limit	
Test Item	Equipment	MDL	1-2		
Pentachlorophenol (PCP)	EPA 3550C:2007 EPA 8270E:2018 GC-MS	0.05	N.D.	0.15	
Conclusion	/	/	Conformity	/	

**Note:** -MDL=method detection limit

-N.D.=not detected (less than method detection limit)

#### 6.2 Special Migration of Formaldehyde

Unit: mg/kg

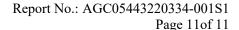
			Test Result(s)			
Test Item(s)	Test condition/	MDL	1-2			Limit
rest rem(s)	Equipment	MIDL	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	Limit
			extractives	extractives	extractives	
Special Migration of Formaldehyde	3% Acetic acid 70°C, 2h/ UV-Vis	5	N.D.	N.D.	N.D.	15
Conclusion	1	/		Conformity		/

**Note:** -MDL=method detection limit

-N.D.=not detected (less than method detection limit)

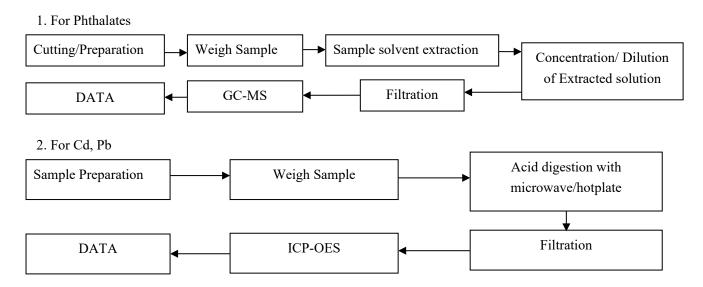
# **Test Point Description**

Test point	Test point description
1-1	Black ABS
1-2	Bamboo
1-3	Metal screw

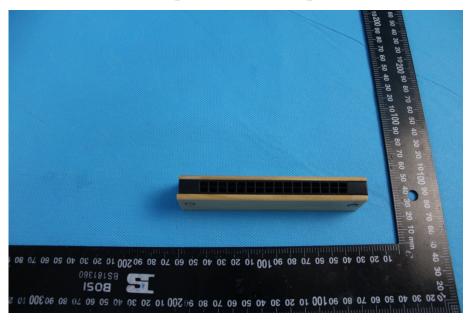




# **Test Flow Chart**



# The photo of the sample



#### AGC05443220334-001S1

AGC authenticate the photo only on original report

\*\*\* End of Report \*\*\*



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- 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.