

## **Test Report**

Report No. : AGC05443241018-001

**SAMPLE NAME** : Set of 3 BBQ tools

MODEL NAME : MO2546

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

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

**DATE OF ISSUE** : Oct. 28, 2024

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





Report No.: AGC05443241018-001 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 Set of 3 BBQ tools

Model MO2546 Vendor code 114276 Country of Origin **CHINA** Country of Destination **EUROPE** Sample Received Date Oct. 16, 2024

**Testing Period** Oct. 16, 2024 to Oct. 28, 2024

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

Approved by: Len

Suhongliang, Leon

**Technical Director** 



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

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 47
- Chromium VI compounds Content

Pass

Annex XVII of the REACH Regulation (EC) No 1907/2006, entry 77
- Formaldehyde Release

Regulation (EU) 2019/1021 on persistent organic pollutants (POPs)
- Pentachlorophenol (PCP) Content

Pass

- Color fastness to rubbing Pass

Regulation 1935/2004/EC and Technical Guide on Metals and alloys used in food contact materials of Council of Europe Resolution CM/Res(2020)9

Pass

- Specific migration of Heavy metal



Report Revise Record

Report No.:	AGC05443241018-001
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Report Version	Issued Date	Valid Version	Notes
/	Oct. 28, 2024	Valid	Initial release



The photo of the sample

The photo of AGC05443241018-001 is for use only with the original report.

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## **Test Point Description**

Test point	Test point description
1-1	Dark brown leather strap
1-2	Bamaboo handle
1-3	Metal pin
1-4+1-5+1-6	Metal clamp+ Metal fork+ Metal shovel
1-6	Metal shovel



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.

## 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)	
rest item(s)	Ollit	Liiiit	MDL	1-1	1-2
Lead(Pb)	mg/kg	500	10	N.D.	N.D.
Conclusion				Conformity	Conformity

				Test Result(s)		
Test Item(s)	Unit	Limit	MDL	1.2	1-4+1-5+1-	
				1-3	6	
Lead(Pb)	mg/kg	500	10	N.D.	N.D.	
Conclusion				Conformity	Conformity	

#### Remark:

#### 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

Tost Itom(s)	Unit	Limit	MDL	Test Result(s)
Test Item(s)	Onit	Lillit	MDL	1-1
Cadmium(Cd)	mg/kg	100	10	N.D.
Co	Conformity			

<sup>1.</sup> As specified by client, the submitted samples were mixed to test, the test points: 1-4+1-5+1-6



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) 1-1
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

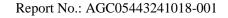
## - Polycyclic-aromatic Hydrocarbons (PAHs) Content

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

Test Item(s)	Unit	Limit	MDL	Test Result(s) 1-1
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

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Report No.: AGC05443241018-001





## 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	/	/

## 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.



Test Item(s)	Unit	Limit	MDL	Test Result(s) 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.
C	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 47

## - Chromium VI compounds Content

Test Methods and Equipment: ISO 17075-1:2017; UV-Vis

Tost Itom(s)	Unit	Limit	MDL	Test Result(s)
Test Item(s)				1-1
Chromium VI compounds	mg/kg	3	3	N.D.
Со	Conformity			



Annex XVII of the REACH Regulation (EC) No 1907/2006, entry 77

## - Formaldehyde Release

Test Methods and Equipment: EN 717-1:2004; UV-Vis

Tost Itom(s)	Unit	Limit	MDL	Test Result(s)
Test Item(s)				1-2
Formaldehyde Release	mg/m³	0.062	0.006	N.D.(240h)
Со	Conformity			

Report No.: AGC05443241018-001

## Regulation (EU) 2019/1021 on persistent organic pollutants (POPs)

#### - Pentachlorophenol (PCP) Content

Test Methods and Equipment: EPA 3550C:2007 & EPA 8270E:2018; GC-MS

Test Item(s)	Unit	Limit	MDL	Test Result(s)
Test Item(s)				1-2
Pentachlorophenol (PCP)	mg/kg	5	5	N.D.
Со	Conformity			

#### - Color 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, 63 %R.H., 4 hrs

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

	Test I	Conclusion	
Test point	Colour fastness to		
	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 and Technical Guide on Metals and alloys used in food contact materials of Council of Europe Resolution CM/Res(2020)9

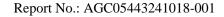
## - Specific migration of Heavy metal

Test Method: EDQM (2024)

Item(s)	Unit Lim		t MDL		Test result(s)	
item(s)	Omt	1 <sup>st</sup> +2 <sup>nd</sup> migration	3 <sup>rd</sup> migration	MDL	1 <sup>st</sup> +2 <sup>nd</sup> migration	3 <sup>rd</sup> migration
Simulant Used: 0.5%	Simulant Used: 0.5% Citric acid; Test Condition: 70°C, 2h					
Barium (Ba)	mg/kg	8.4	1.2	0.1	N.D.	N.D.
Copper (Cu)	mg/kg	28	4	0.1	N.D.	N.D.
Iron (Fe)	mg/kg	280	40	0.1	2.052	0.253
Tin (Sn)	mg/kg	700	100	0.1	N.D.	N.D.
Chromium (Cr)	mg/kg	7	1	0.01	N.D.	N.D.
Manganese (Mn)	mg/kg	3.85	0.55	0.1	N.D.	N.D.
Zinc (Zn)	mg/kg	35	5	0.1	N.D.	N.D.
Aluminium (Al)	mg/kg	35	5	0.1	N.D.	N.D.
Lithium (Li)	mg/kg	0.336	0.048	0.01	N.D.	N.D.
Beryllium (Be)	mg/kg	0.07	0.01	0.005	N.D.	N.D.
Vanadium (V)	mg/kg	0.07	0.01	0.005	N.D.	N.D.
Nickel (Ni)	mg/kg	0.98	0.14	0.01	N.D.	N.D.
Cobalt (Co)	mg/kg	0.14	0.02	0.01	N.D.	N.D.
Arsenic (As)	mg/kg	0.014	0.002	0.002	N.D.	N.D.
Molybdenum (Mo)	mg/kg	0.84	0.12	0.01	N.D.	N.D.
Silver (Ag)	mg/kg	0.56	0.08	0.01	N.D.	N.D.
Cadmium (Cd)	mg/kg	0.035	0.005	0.002	N.D.	N.D.
Antimony (Sb)	mg/kg	0.28	0.04	0.01	N.D.	N.D.
Mercury (Hg)	mg/kg	0.021	0.003	0.002	N.D.	N.D.
Thallium (Tl)	mg/kg	0.007	0.001	0.001	N.D.	N.D.
Lead (Pb)	mg/kg	0.07	0.01	0.01	N.D.	N.D.
Zirconium (Zr)	mg/kg	14	2	0.01	N.D.	N.D.
Magnesium (Mg)	mg/kg	/	/	0.01	0.019	N.D.
Titanium (Ti)	mg/kg	/	/	0.01	N.D.	N.D.
Conclusion			Conformity	Conformity		

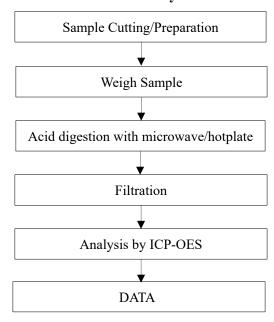
#### Note:

Results from all three migration are to be considered for compliance: Result of  $3^{rd}$  migration shall not exceed the SRL and Sum of result of  $1^{st}$  and  $2^{nd}$  migration shall not exceed 7 times of SRL.

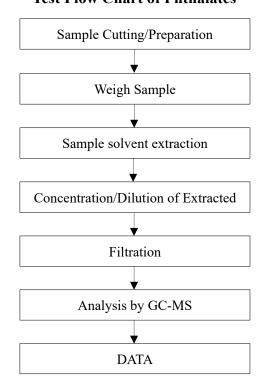


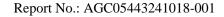


## **Test Flow Chart of Heavy Metal Content**



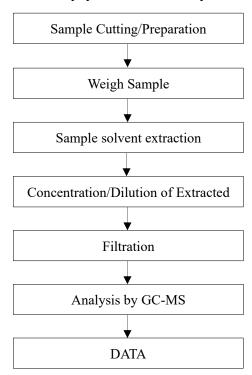
## **Test Flow Chart of Phthalates**

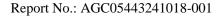






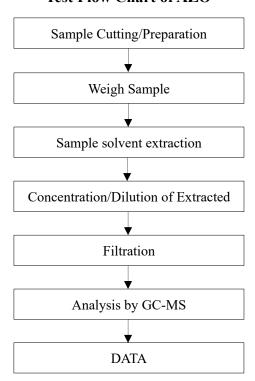
## Test Flow Chart of Polycyclic-aromatic Hydrocarbons (PAHs)

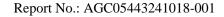






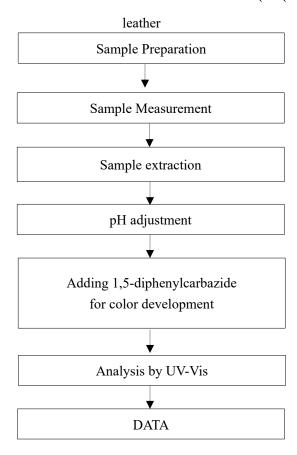
## **Test Flow Chart of AZO**

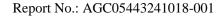






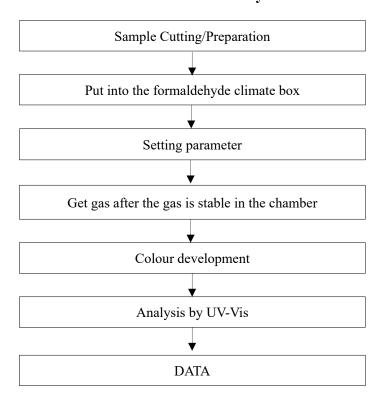
## Test Flow Chart of Hexavalent Chromium (Cr(VI))

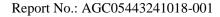






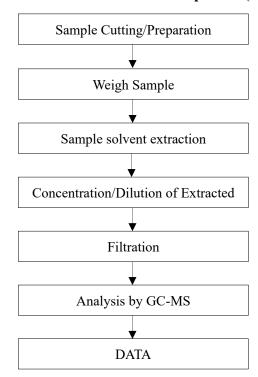
## **Test Flow Chart of Formaldehyde Release**







## **Test Flow Chart of Pentachlorophenol (PCP)**





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- 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.
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\*\*\* End of Report \*\*\*