

# **Test Report**

Report No. : AGC05443230715-001

**SAMPLE NAME** : Ball pen and roller set

MODEL NAME : MO7475

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

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

**DATE OF ISSUE** : Jul. 27, 2023

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





Report No.: AGC05443230715-001

pplicant : 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 : Ball pen and roller set

Model : MO7475

Vendor code : 111236

Country of Origin : CHINA

Country of Destination : EUROPE

Sample Received Date : Jul. 19, 2023

Testing Period : Jul. 19, 2023 to Jul. 27, 2023

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

Test Requested: Conclusion

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

- Lead(Pb) Content

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

-Cadmium(Cd) Content

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

Pass

- Phthalates Content

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

- Polycyclic-aromatic Hydrocarbons (PAHs) Content

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

- Aromatic Amines Azodyes (AZO) Content

- Colorfastness to rubbing Pass

Approved by: Approved by: Approved by:

Huangguohua Liangdan, Jessie.Liang

Vice Laboratory Manager Technical Director

Any report having not been signed by authorized approver, or having been altered without authorization, or having not been stamped by the "Dedicated Testing/Inspection Stamp" is deemed to be invalid. Copying or excerpting portion of, or altering the content of the report is not permitted without the written authorization of AGC. The test results presented in the report apply only to the tested sample. Any objections to report issued by AGC should be submitted to AGC within 15days after the issuance of the test report. Further enquiry of validity or verification of the test report should be addressed to AGC by agc01@agccert.com.

Pass

Pass



Report Revise Record

Report No.:	AGC05443230715-001
-------------	--------------------

Report Version	Issued Date	Valid Version	Notes
/	Jul. 27, 2023	Valid	Initial release



The photo of the sample



The photo of AGC05443230715-001 is for use only with the original report.

#### **Test Point Description**

Test point	Test point description
1-1	Black PU leather
1-2	Black plastic zipper teeth
1-3	Black zipper fabric
1-4	Metal zipper head
1-5	Metal Upper Barrel
1-6	Metal Lower Barrel
1-7	Metal clip
1-8	Transparent plastic inner movement +White plastic inner movement
1-9	Blue plastic Ink cap+Black plastic ink chamber
1-10	Metal Ink chamber
1-11	Metal Spring
1-12	Metal Movement
1-13	Metal Cap
1-14	Black ink+Blue ink



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

Tost Itom(s)	Unit Limit		MDI	Test Result(s)			
Test Item(s)	Omi L	Lımıt	MDL	1-1	1-2	1-3	
Lead(Pb)	mg/kg	500	10	N.D.	N.D.	N.D.	
Conclusion				Conformity	Conformity	Conformity	

Tost Itam(s)	I Init	Unit Limit	MDI	Test Result(s)			
Test Item(s)	Unit	Limit	MDL	1-4	1-5	1-6	
Lead(Pb)	mg/kg	500	10	17	70	20	
C	onclusion			Conformity	Conformity	Conformity	

Test Item(s)	Unit Limit	MDL	Test Result(s)			
			1-7	1-8	1-9	
Lead(Pb)	mg/kg	500	10	N.D.	N.D.	N.D.
Conclusion				Conformity	Conformity	Conformity

Test Item(s)	Unit Limit		MDI	Test Result(s)		
rest item(s)		LIIIII	MDL	1-10	1-11	1-12
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)	
			MIDL	1-13	1-14
Lead(Pb)	mg/kg	500	10	20	N.D.
Co	Conformity	Conformity			

#### Remark:

1. As specified by client, the submitted samples were mixed to test, the test points: 1-8,1-9,1-14

## 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	Limit	nit MDL	Test Result(s)			
		Lillit	MIDL	1-1	1-2	1-8	
Cadmium(Cd)	mg/kg	100	10	N.D.	N.D.	N.D.	
Conclusion				Conformity	Conformity	Conformity	



Test Item(s)	I Init	Limit	MDL	Test Result(s)		
	Unit	Limit	MIDL	1-9	1-14	
Cadmium(Cd)	mg/kg	100	10	N.D.	N.D.	
Co	Conformity	Conformity				

#### Remark:

1. As specified by client, the submitted samples were mixed to test, the test points: 1-8,1-9,1-14

#### 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 Itams(s)	Unit Limit		MDL	Test Result(s)			
Test Item(s)	Unit	Limit	MDL	1-1	1-2	1-8	
Diisobutyl phthalate (DIBP) CAS:84-69-5	%	0.1	0.005	N.D.	N.D.	N.D.	
Dibutyl phthalate (DBP) CAS:84-74-2	%	0.1	0.005	N.D.	N.D.	N.D.	
Butylbenzyl phthalate (BBP) CAS:85-68-7	%	0.1	0.005	N.D.	N.D.	N.D.	
Di-(2-ethylhexyl) Phthalate (DEHP) CAS:117-81-7	%	0.1	0.005	N.D.	N.D.	N.D.	
Di-n-octyl phthalate (DNOP) CAS:117-84-0	%	/	0.005	N.D.	N.D.	N.D.	
Di-isononyl phthalate (DINP) CAS:28553-12-0, 68515-48-0	%	/	0.005	N.D.	N.D.	N.D.	
Di-isodecyl phthalate(DIDP) CAS:26761-40-0, 68515-49-1	%	/	0.005	N.D.	N.D.	N.D.	
Sum of DIBP +DBP+BBP+DEHP	%	0.1	/	N.D.	N.D.	N.D.	
Sum of DNOP+DINP+DIDP	%	0.1	/	N.D.	N.D.	N.D.	
Con	clusion		·	Conformity	Conformity	Conformity	



Tast Itam(s)	T I:4	Limit	MDI	Test Resi	ult(s)		
Test Item(s)	Unit	Limit	MDL	1-9	1-14		
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.		
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.		
Con	Conclusion						

#### Remark:

#### 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 Items(s)	Unit Limit	MDI	Test Result(s)			
Test Item(s)	Omi	Lilliit	Limit MDL	1-1	1-2	1-8
Benzo[a]pyrene(BaP)	mg/kg	1	0.1	N.D.	N.D.	N.D.
Benzo[e]pyrene(BeP)	mg/kg	1	0.1	N.D.	N.D.	N.D.
Benzo[a]anthracene(BaA)	mg/kg	1	0.1	N.D.	N.D.	N.D.
Benzo[b]fluoranthene(BbF)	mg/kg	1	0.1	N.D.	N.D.	N.D.
Benzo[j]fluoranthene(BjFA)	mg/kg	1	0.1	N.D.	N.D.	N.D.
Benzo[k]fluoranthene(BkF)	mg/kg	1	0.1	N.D.	N.D.	N.D.
Chrysene(CHR)	mg/kg	1	0.1	N.D.	N.D.	N.D.
Dibenzo[a,h]anthracene(DBA)	mg/kg	1	0.1	N.D.	N.D.	N.D.
Conclusion			Conformity	Conformity	Conformity	

<sup>1.</sup> As specified by client, the submitted samples were mixed to test, the test points: 1-8,1-9,1-14



Toot Itom(s)	Unit	Limit	MDL	Test Result(s)	
Test Item(s)	Unit	Liiiit	MDL	1-9	1-14
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.
Co	Conformity	Conformity			

#### Remark:

1. As specified by client, the submitted samples were mixed to test, the test points: 1-8,1-9,1-14

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	1	/



## 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,ISO 17234-1:2020; GC-MS

Test Item(s)	Unit	Limit	MDL	Test Result(s)	
. ,			1-1	1-3	
4-Aminobiphenyl CAS:92-67-1	mg/kg	30	5	N.D.	N.D.
Benzidine CAS:92-87-5	mg/kg	30	5	N.D.	N.D.
4-Chloro-o-toluidine CAS:95-69-2	mg/kg	30	5	N.D.	N.D.
2-Naphthylamine CAS:91-59-8	mg/kg	30	5	N.D.	N.D.
o-Aminoazotoluene CAS:97-56-3	mg/kg	30	5	N.D.	N.D.
5-Nitro-o-toluidine CAS:99-55-8	mg/kg	30	5	N.D.	N.D.
p-Chloroaniline CAS:106-47-8	mg/kg	30	5	N.D.	N.D.
4-Methoxy-m-phenylenediamine CAS:615-05-4	mg/kg	30	5	N.D.	N.D.
4,4'-Diaminodiphenylmethane CAS:101-77-9	mg/kg	30	5	N.D.	N.D.
3,3'-Dichlorobenzidine CAS:91-94-1	mg/kg	30	5	N.D.	N.D.
3,3'-Dimethoxybenzidine CAS:119-90-4	mg/kg	30	5	N.D.	N.D.
3,3'-Dimethybenzidine CAS:119-93-7	mg/kg	30	5	N.D.	N.D.
4,4'-Methylenedi-o-toluidine CAS:838-88-0	mg/kg	30	5	N.D.	N.D.
p-Cresidine CAS:120-71-8	mg/kg	30	5	N.D.	N.D.
4,4'-Methylenebis[2-chloroaniline] CAS:101-14-4	mg/kg	30	5	N.D.	N.D.
4,4'-Oxydianiline CAS:101-80-4	mg/kg	30	5	N.D.	N.D.
4,4'-Thiodianiline CAS:139-65-1	mg/kg	30	5	N.D.	N.D.
2-Aminotoluene CAS:95-53-4	mg/kg	30	5	N.D.	N.D.
2,4-Toluylendiamine CAS:95-80-7	mg/kg	30	5	N.D.	N.D.
2,4,5-Trimethylaniline CAS:137-17-7	mg/kg	30	5	N.D.	N.D.
o-Anisidine CAS:90-04-0	mg/kg	30	5	N.D.	N.D.
4-Aminoazobenzene CAS:60-09-3	mg/kg	30	5	N.D.	N.D.
Conclusion			Conformity	Conformity	

Any report having not been signed by authorized approver, or having been altered without authorization, or having not been stamped by the "Dedicated Testing/Inspection Stamp" is deemed to be invalid. Copying or excerpting portion of, or altering the content of the report is not permitted without the written authorization of AGC. The test results presented in the report apply only to the tested sample. Any objections to report issued by AGC should be submitted to AGC within 15days after the issuance of the test report. Further enquiry of validity or verification of the test report should be addressed to AGC by agc01@agccert.com.

Report No.: AGC05443230715-001



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.

-Colorfastness to rubbing

**Test Method:** ISO 11640-2018 **Friction material:** White felt

Friction load: 1000g

The time of conditioning as well as the atmospheric conditions during testing: 21.5 °C, 63 %R.H., 24 hrs

The percentage of soak of wet rubbing cloth: 95%

Test point		Test 1			
		Colour fastness to	Conclusion		
		Dry rubbing Wet rubbing			
1.1	Change in colour	4-5	4-5	Conformity	
1-1	Staining	4-5	4-5	Conformity	
Limit (Client's	s Requirement)	≥2-3	≥2-3	/	

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

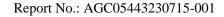
Note:

Colour Fastness Grade:

Grade 5 = No Colour Change (Best Grade)

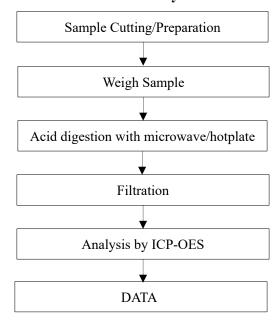
Grade 1 = Colour Change Seriously (Bad Grade)

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

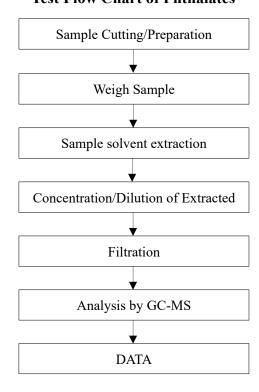


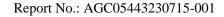


## **Test Flow Chart of Heavy Metal Content**



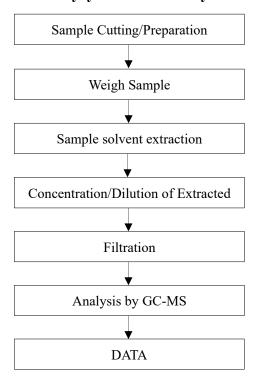
#### **Test Flow Chart of Phthalates**

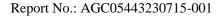






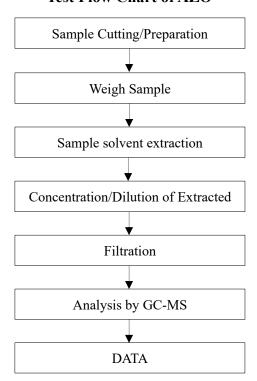
## Test Flow Chart of Polycyclic-aromatic Hydrocarbons (PAHs)







#### **Test Flow Chart of AZO**





## 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 \*\*\*