

# **Test Report**

Report No. : AGC05443240537-001S1

**SAMPLE NAME** : Recycled aluminium ball pen

MODEL NAME : MO6561

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

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

**DATE OF ISSUE** : Jun. 21, 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 : Recycled aluminium ball pen

Model : MO6561

Vendor code : 118966

Country of Origin : CHINA

Country of Destination : EUROPE

Sample Received Date : May 27, 2024

Testing Period : May 27, 2024 to Jun. 13, 2024

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

Pass

Report No.: AGC05443240537-001S1

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

Approved by:

Suhongliang, Leon

**Technical Director** 



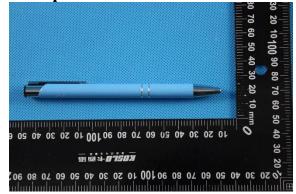
### Report Revise Record

| Report Version | Issued Date   | Valid Version | Notes           |
|----------------|---------------|---------------|-----------------|
| /              | Jun. 13, 2024 | Invalid       | Initial release |
| S1             | Jun. 21, 2024 | Valid         | Add photo       |



The photo of the sample





The photo of AGC05443240537-001S1 is for use only with the original report.

### **Test Point Description**

| Test point  | Test point description  |
|-------------|---|
| 1-1+1-2+1-3 | Red coating+White coating+Green coating   |
| 1-4         | Silver coating  |
| 1-5+1-6+1-7 | Silver plastic pen tip+Silver plastic pen holder tail+Black plastic pen tail plug |
| 1-8         | Metal pen holder  |
| 1-9         | Metal pen clip  |
| 1-10        | Metal pen holder ring   |
| 1-11+1-12   | White plastic pen refill tube+White plastic inner thrust device                   |
| 1-13        | Metal spring  |
| 1-14        | 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

|              |            |            |            | Test Result(s) |      |          |  |
|--------------|------------|------------|------------|----------------|------|----------|--|
| Test Item(s) | Unit       | Limit      | MDL        | 1-1+1-2+       | 1 /  | 1-5+1-6+ |  |
|              |            |            |            | 1-3            | 1-4  | 1-7      |  |
| Lead(Pb)     | mg/kg      | 500        | 10         | N.D.           | N.D. | N.D.     |  |
| Con          | Conformity | Conformity | Conformity |                |      |          |  |

| Tost Itam(s) | st Item(s) Unit Limit |            | MDL        | Test Result(s) |      |      |  |
|--------------|-----------------------|------------|------------|----------------|------|------|--|
| rest item(s) |                       |            | MIDL       | 1-8            | 1-9  | 1-10 |  |
| Lead(Pb)     | mg/kg                 | 500        | 10         | N.D.           | N.D. | 72   |  |
| Con          | Conformity            | Conformity | Conformity |                |      |      |  |

| Tost Itom(s) | Unit Limit | Limit      | MDI        | Test Result(s) |      |      |  |
|--------------|------------|------------|------------|----------------|------|------|--|
| Test Item(s) | Unit       | LIIIII     | Limit MDL  |                | 1-13 | 1-14 |  |
| Lead(Pb)     | mg/kg      | 500        | 10         | N.D.           | N.D. | N.D. |  |
| Con          | Conformity | Conformity | Conformity |                |      |      |  |

#### Remark:

- 1. As specified by client, the submitted samples were mixed to test, the test points: 1-1+1-2+1-3,1-5+1-6+1-7,1-11+1-12
- 2. As specified by client, the submitted samples were directly tested without drying, the test points: 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

| Tost Itam(s) | Unit Limit |            | MDL | Test Result(s) |      |  |
|--------------|------------|------------|-----|----------------|------|--|
| Test Item(s) | Unit       | Limit      | MDL | 1-1+1-2+1-3    | 1-4  |  |
| Cadmium(Cd)  | mg/kg      | 100        | 10  | N.D.           | N.D. |  |
| Co           | Conformity | Conformity |     |                |      |  |

| Tost Itam(s) | Unit Limit |            | MDL | Test Result(s) |           |
|--------------|------------|------------|-----|----------------|-----------|
| Test Item(s) | Unit       | Limit      | MDL | 1-5+1-6+1-7    | 1-11+1-12 |
| 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: 1-1+1-2+1-3,1-5+1-6+1-7,1-11+1-12



## 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

| Tost Itom(s)   | Unit       | Limit      | MDL   | Test Result(s) |      |
|--|------------|------------|-------|----------------|------|
| Test Item(s)   | Onit       | Lillit     | MDL   | 1-1+1-2+1-3    | 1-4  |
| Diisobutyl phthalate (DIBP)<br>CAS:84-69-5                 | %          | 0.1        | 0.005 | N.D.           | N.D. |
| Dibutyl phthalate (DBP)<br>CAS:84-74-2                     | %          | 0.1        | 0.005 | N.D.           | N.D. |
| Butylbenzyl phthalate (BBP)<br>CAS:85-68-7                 | %          | 0.1        | 0.005 | N.D.           | N.D. |
| Di-(2-ethylhexyl) Phthalate (DEHP)<br>CAS:117-81-7         | %          | 0.1        | 0.005 | N.D.           | N.D. |
| Di-n-octyl phthalate (DNOP)<br>CAS:117-84-0                | %          | /          | 0.005 | N.D.           | N.D. |
| Di-isononyl phthalate (DINP)<br>CAS:28553-12-0, 68515-48-0 | %          | /          | 0.005 | N.D.           | N.D. |
| Di-isodecyl phthalate(DIDP)<br>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. |
| Cor  | Conformity | Conformity |       |                |      |

| Test Item(s)   | Unit | Limit      | MDL        | Test Result(s) |           |  |
|--|------|------------|------------|----------------|-----------|--|
| Test Item(s)   | Unit | Limit      | MDL        | 1-5+1-6+1-7    | 1-11+1-12 |  |
| Diisobutyl phthalate (DIBP)<br>CAS:84-69-5                 | %    | 0.1        | 0.005      | N.D.           | N.D.      |  |
| Dibutyl phthalate (DBP)<br>CAS:84-74-2                     | %    | 0.1        | 0.005      | N.D.           | N.D.      |  |
| Butylbenzyl phthalate (BBP)<br>CAS:85-68-7                 | %    | 0.1        | 0.005      | N.D.           | N.D.      |  |
| Di-(2-ethylhexyl) Phthalate (DEHP)<br>CAS:117-81-7         | %    | 0.1        | 0.005      | N.D.           | N.D.      |  |
| Di-n-octyl phthalate (DNOP)<br>CAS:117-84-0                | %    | /          | 0.005      | N.D.           | N.D.      |  |
| Di-isononyl phthalate (DINP)<br>CAS:28553-12-0, 68515-48-0 | %    | /          | 0.005      | N.D.           | N.D.      |  |
| Di-isodecyl phthalate(DIDP)<br>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  |      | Conformity | Conformity |                |           |  |

#### Remark:

1. As specified by client, the submitted samples were mixed to test, the test points: 1-1+1-2+1-3,1-5+1-6+1-7,1-11+1-12

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Report No.: AGC05443240537-001S1



### 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)                | I Init         | Limit      | MDI         | Test Result(s) |      |  |
|-----------------------------|----------------|------------|-------------|----------------|------|--|
| Test Item(s)                | Unit Limit MDL | MIDL       | 1-1+1-2+1-3 | 1-4            |      |  |
| 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 |             |                |      |  |

| Test Item(s)                 | Unit       | Limit | MDL  | Test Result(s) |  |  |  |  |
|------------------------------|------------|-------|------|----------------|--|--|--|--|
| rest tem(s)                  | Oiiit      | Limit | WIDL | 1-5+1-6+1-7    |  |  |  |  |
| 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.           |  |  |  |  |
| Conc                         | Conclusion |       |      |                |  |  |  |  |

### Remark:

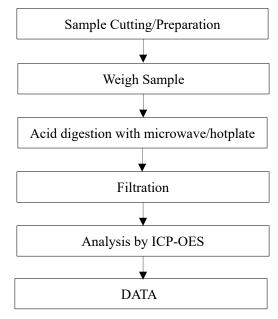
1. As specified by client, the submitted samples were mixed to test, the test points: 1-1+1-2+1-3,1-5+1-6+1-7

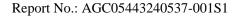


Limit requirements of Polycyclic-aromatic Hydrocarbons (PAHs) (Unit: mg/kg)

| Items   | CAS No.  | Extender<br>oils or used<br>for the<br>production<br>of tyres or<br>parts of<br>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+<br>BjFA+ BkF+ CHR+ DBA | /        | ≤ 10  | /  | /   |

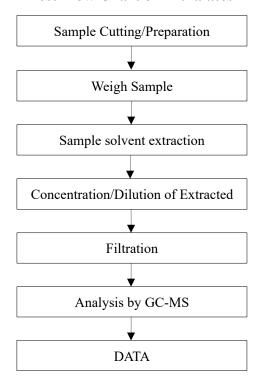
# **Test Flow Chart of Heavy Metal Content**

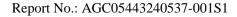






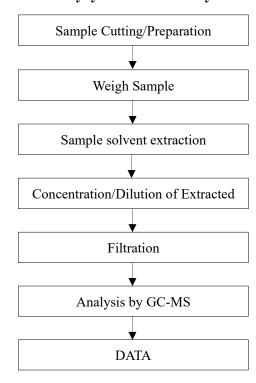
#### **Test Flow Chart of Phthalates**







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





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- 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").
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- 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 \*\*\*