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# **TEST REPORT**

| APPLICANT              | : | Xindao B.V.                                       |
|------------------------|---|---|
| ADDRESS                | : | P.O. Box 3082, 2280 GB, Rijswijk, The Netherlands |
| SAMPLE DESCRIPTION     | : | Swiss Peak Elite 1L copper vacuum flask           |
| ITEM NO.               | : | P433.36   |
| COUNTRY OF ORIGIN      | : | China   |
| COUNTRY OF DESTINATION | : | Europe  |
| SAMPLE RECEIVED DATE   | : | 26-Jun-2018                                       |
| TURN AROUND TIME       | : | 26-Jun-2018 to 03-Jul-2018                        |

The following test item(s) was/were performed on submitted sample(s) and/or component(s) confirmed by applicant

| TEST REQUESTED   | RESULT |
|--|--------|
| Bisphenol A  | Pass   |
| Polycyclic Aromatic Hydrocarbons (PAHs) - REACH Annex XVII, Entry 50                                       | Pass   |
| Polycyclic Aromatic Hydrocarbons (PAHs) - German GS Specification document: AfPS GS 2014:01 PAK (PAK=PAHs) | Pass   |
| Overall Migration  | Pass   |
| Specific Migration of Heavy Metal  | Pass   |
| Specific Release of Heavy Metals   | Pass   |

Results obtained refer only to samples, products or material received in Laboratory, as described in point related to sample description, and tested in conditions shown in present report. Eurofins Product Testing Service (Shanghai) Co., Ltd ensures that this job has been performed according to our Quality System and complying contract and legal conditions. If you happen to have any comments, please do it by sending email to <u>info.sh@eurofins.com</u> and referring to this report number. Reproduction of this document is only valid if it is done completely and under the written permission of Eurofins Product Testing Service (Shanghai) Co., Ltd. If you happen to have any complaints, please do it by sending email to <u>chinacomplaint@eurofins.com</u> and referring to this report number.



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Signed for and on behalf of Eurofins Product Testing Service (Shanghai) Co., Ltd

Rex Young

Rex Yang Assistant Chemical Lab Manager



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# **SAMPLE PHOTO**



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# **COMPONENT LIST**

| Component No. | Component             | Quote From           |
|---------------|-----------------------|----------------------|
| 1             | BLACK PP CUP          | EFSH18062295-CG-01-1 |
| 2             | WHITE PP STOPPER      | 1                    |
| 3             | SILICONE RING         | 1                    |
| 4             | STAINLESS STEEL INNER | 1                    |



### **Bisphenol A (BPA) Content**

Test Requested : In accordance with French Law No. 2012/1442, DGCCRF information notice 2004/64 on materials in contact with foodstuffs.

Test Method : Extraction with organic solvent, analysis by GC-MS and LC-MS

| Test item(s)              | Limit   | Unit  | MDL  | Res | ult |
|---------------------------|---------|-------|------|-----|-----|
| rest tient(s)             | Liiiiit | Unit  | WIDL | 1   | 2   |
| Bisphenol A (BPA) content | 0.1     | mg/kg | 0.1  | ND  | ND  |

#### Note:

- (1) mg/kg =milligram per kilogram
- (2) MDL = method detection limit
- (3) ND = not detected (<MDL)



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## **TEST RESULT**

### Polycyclic Aromatic Hydrocarbons (PAHs)

Test Request:Polycyclic Aromatic Hydrocarbons (PAHs) content as specified in Regulation (EU) 2015/326<br/>amending entry 50 of Annex XVII of REACH Regulation (EC) No 1907/2006.

Test Method: Solvent extraction and quantification by gas chromatography-mass selective detection (GC-MS) with respect to AfPS GS 2014:01 PAK (PAK=PAHs) requirement.

| Tested Item(s)   | CAS No.  | Unit  | Limit | MDL | Result |
|--|----------|-------|-------|-----|--------|
|  |          |       |       |     | 1      |
| For rubber or plastic will direct contact with skin and mout | h.       |       |       |     |        |
| Benzo(a)anthracene   | 56-55-3  | mg/kg | 1     | 0.2 | ND     |
| Chrysene   | 218-01-9 | mg/kg | 1     | 0.2 | ND     |
| Benzo(b)fluoranthene   | 205-99-2 | mg/kg | 1     | 0.2 | ND     |
| Benzo(j)fluoranthene   | 205-82-3 | mg/kg | 1     | 0.2 | ND     |
| Benzo(k)fluoranthene   | 207-08-9 | mg/kg | 1     | 0.2 | ND     |
| Benzo(a)pyrene   | 50-32-8  | mg/kg | 1     | 0.2 | ND     |
| Dibenzo(a,h)anthracene                                       | 53-70-3  | mg/kg | 1     | 0.2 | ND     |
| Benzo(e)pyrene   | 192-97-2 | mg/kg | 1     | 0.2 | ND     |

### Remark:

mg/kg = milligram per kilogram MDL = method detection limit ND = Not detected, less than MDL



### Polycyclic Aromatic Hydrocarbons (PAHs)

| Test Request: | 18 Polycyclic Aromatic Hydrocarbons in polymers (PAHs) according to German GS Specification document: AfPS GS 2014:01 PAK (PAK=PAHs)                         |
|---------------|--|
| Test Method:  | Solvent extraction and quantification by gas chromatography-mass selective detection (GC-MS) with respect to AfPS GS 2014:01 PAK (PAK=PAHs) requirement      |
| Requirement:  | AfPS GS 2014:01 PAK (PAK=PAHs) requirement: Limits for PAHs in Toys under Directive 2009/48/EC and Other products under ProdSG, see table 1 on next page(s): |

| Parameter   | CAS No.  | Unit  | Result<br>1 |
|---|--|-------|-------------|
| Benzo(a)pyrene  | 50-32-8  | mg/kg | ND          |
| Benzo(e)pyrene  | 192-97-2                                       | mg/kg | ND          |
| Benzo(a)anthracene  | 56-55-3  | mg/kg | ND          |
| Benzo(b)fluoranthene  | 205-99-2                                       | mg/kg | ND          |
| Benzo(j)fluoranthene  | 205-82-3                                       | mg/kg | ND          |
| Benzo(k)fluoranthene  | 207-08-9                                       | mg/kg | ND          |
| Chrysene  | 218-01-9                                       | mg/kg | ND          |
| Dibenzo(a,h)anthracene  | 53-70-3  | mg/kg | ND          |
| Benzo(ghi)perylene  | 191-24-2                                       | mg/kg | ND          |
| Indeno(1,2,3-cd)pyrene  | 193-39-5                                       | mg/kg | ND          |
| Sum of Acenaphthene, Acenaphthylene, Fluorene, Phenanthrene, Pyrene, Anthracene, Fluoranthene | -  | mg/kg | ND          |
| Naphthalene   | 91-20-3  | mg/kg | ND          |
| Sum 18 PAHs   | -  | mg/kg | ND          |
| Conclusion:   | For Category 2<br>(Other products u<br>ProdSG) | nder  | Pass        |

#### Remark:

mg/kg = milligram per kilogram ND = not detected, less than 0.2 mg/kg



### Table 1

AfPS GS 2014:01 PAK (PAK=PAHs) requirement: Limits for PAHs in Toys under Directive 2009/48/EC and Other products under ProdSG.

| Parameter Unit   |       | Category 1<br>Materials indented to<br>be put in the mouth, or<br>materials of toys<br>intended long term skin<br>contact (longer than<br>30s) |                                       | ory 2<br>covered by<br>vith<br>skin contact<br>in 30<br>g-term skin<br>peated<br>in contact | Category 3<br>Materials not covered<br>by category 1 or 2 with<br>foreseeable skin<br>contact up to 30<br>seconds (short term<br>skin contact) |                                      |
|--|-------|--|---------------------------------------|---|--|--------------------------------------|
|  |       | -  | Toys under<br>Directive<br>2009/48/EC | Other<br>products<br>under<br>ProdSG  | Toys under<br>Directive<br>2009/48/EC  | Other<br>products<br>under<br>ProdSG |
| Benzo(a)pyrene   | mg/kg | <0.2   | <0.2                                  | <0.5  | <0.5   | <1                                   |
| Benzo(e)pyrene   | mg/kg | <0.2   | <0.2                                  | <0.5  | <0.5   | <1                                   |
| Benzo(a)anthracene   | mg/kg | <0.2   | <0.2                                  | <0.5  | <0.5   | <1                                   |
| Benzo(b)fluoranthene   | mg/kg | <0.2   | <0.2                                  | <0.5  | <0.5   | <1                                   |
| Benzo(j)fluoranthene   | mg/kg | <0.2   | <0.2                                  | <0.5  | <0.5   | <1                                   |
| Benzo(k)fluoranthene   | mg/kg | <0.2   | <0.2                                  | <0.5  | <0.5   | <1                                   |
| Chrysene   | mg/kg | <0.2   | <0.2                                  | <0.5  | <0.5   | <1                                   |
| Dibenzo(a,h)anthracene   | mg/kg | <0.2   | <0.2                                  | <0.5  | <0.5   | <1                                   |
| Benzo(ghi)perylene   | mg/kg | <0.2   | <0.2                                  | <0.5  | <0.5   | <1                                   |
| Indeno(1,2,3-cd)pyrene   | mg/kg | <0.2   | <0.2                                  | <0.5  | <0.5   | <1                                   |
| Acenaphthene,<br>Acenaphthylene,<br>Fluorene, Phenanthrene,<br>Pyrene,<br>Anthracene, Fluoranthene | mg/kg | <1<br>Sum*   | <5<br>Sum*                            | <10<br>Sum*   | <20<br>Sum*  | <50<br>Sum*                          |
| Naphthalene  | mg/kg | <1   | <                                     | 2   | <10  |                                      |
| Sum* 18 PAHs   | mg/kg | <1   | <5                                    | <10   | <20  | <50                                  |

\* = Only those PAH components are taken into account, which have been specified in the material over the 0.2 mg/kg.



### **Overall Migration**

Test Requested : To determine the Overall Migration for compliance with Commission Regulation (EU) No 10/2011 and its amendments relating to plastic materials and articles intended to come into contact with foodstuffs.

Test Method : By reference to EU 10/2011 for selection of test condition;

With reference to EN 1186-1:2002 for selection of test methods;

or EN1186-3:2002 aqueous food simulants by total immersion method; or EN1186-9:2002 aqueous food simulants by article filling method; or EN1186-2:2002 olive oil by total immersion method; or EN1186-8:2002 olive oil by article filling method; or EN 1186-14:2002 substitute test

| Simulant used                         | Time   | Temperature | Max. Permissible<br>Limit | Result<br>1             |
|---------------------------------------|--------|-------------|---------------------------|-------------------------|
| 3% Acetic Acid (W/V) Aqueous Solution | 2hours | <b>70</b> ℃ | 10 mg/dm <sup>2</sup>     | <3.0 mg/dm <sup>2</sup> |
| 50% Ethanol (V/V) Aqueous Solution    | 2hours | <b>70</b> ℃ | 10 mg/dm <sup>2</sup>     | <3.0 mg/dm <sup>2</sup> |

| Simulant used                         | Time   | Temperature | Max. Permissible<br>Limit | Result<br>2             |
|---------------------------------------|--------|-------------|---------------------------|-------------------------|
| 3% Acetic Acid (W/V) Aqueous Solution | 2hours | <b>70</b> ℃ | 10 mg/dm <sup>2</sup>     | <3.0 mg/dm <sup>2</sup> |
| 50% Ethanol (V/V) Aqueous Solution    | 2hours | <b>70</b> ℃ | 10 mg/dm <sup>2</sup>     | 5.3 mg/dm <sup>2</sup>  |

| Simulant used                         | Time   | Temperature | Max. Permissible<br>Limit | Result<br>3             |
|---------------------------------------|--------|-------------|---------------------------|-------------------------|
| 3% Acetic Acid (W/V) Aqueous Solution | 2hours | <b>70</b> ℃ | 10 mg/dm <sup>2</sup>     | <3.0 mg/dm <sup>2</sup> |
| 50% Ethanol (V/V) Aqueous Solution    | 2hours | <b>70</b> ℃ | 10 mg/dm <sup>2</sup>     | <3.0 mg/dm <sup>2</sup> |

### Note :

- (1)  $mg/dm^2$ =milligram per square decimeter
- (2) mg/kg = milligram per kilogram
- (3) °C=degree Celsius
- $(4) \leq less than$
- (5) Analytical tolerance of aqueous simulants is 1 mg/dm<sup>2</sup> or 6mg/kg
- (6) Analytical tolerance of fatty food simulants is 3 mg/dm2 or 20mg/kg
- (7) Test condition & simulant were specified by client.



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# **TEST RESULT**

### Specific Migration of Heavy Metal

- Test Requested : To determine the Specific Migration of Heavy Metal for compliance with Commission Regulation (EU) No 10/2011 and its amendments on plastic materials and articles intended to come into contact with food.
- Test Method : With reference to Regulation (EU) 10/2011 for selection of test condition and EN 13130-1:2004 for test preparation method; analysis was performed by ICP-OES.

Simulant Used: 3% Acetic Acid (W/V) Aqueous Solution. Test Condition: 70  $^{\circ}$ C 2 hours

| Tested Item(s) | Unit  | Limit | MDL  | Result |    |  |
|----------------|-------|-------|------|--------|----|--|
|                | Onit  |       |      | 1      | 2  |  |
| Barium         | mg/kg | 1     | 0.25 | ND     | ND |  |
| Cobalt         | mg/kg | 0.05  | 0.05 | ND     | ND |  |
| Copper         | mg/kg | 5     | 0.25 | ND     | ND |  |
| Iron           | mg/kg | 48    | 0.25 | ND     | ND |  |
| Lithium        | mg/kg | 0.6   | 0.5  | ND     | ND |  |
| Manganese      | mg/kg | 0.6   | 0.05 | ND     | ND |  |
| Zinc           | mg/kg | 5     | 0.5  | ND     | ND |  |

Note:

- (1) mg/kg = milligram per kilogram
- (2) MDL = Method Detection Limit
- (3) ND = Not Detected(<MDL)
- (4) Test condition & simulant were specified by client.



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## **TEST RESULT**

### **Specific Release of Heavy Metals**

Test In accordance with CM/Res (2013)9 on metals and alloys used in food contact materials and articles.

Test Method : Samples were prepared at specific condition, analysed by using ICP-OES/ICP-MS.

Simulant Used: 0.5% citric acid

Test Condition: 70°C 2hours

| Test Item(s)    | Unit  | MDL     | Result<br>4                                   |                     |                           |                   |
|-----------------|-------|---------|---|---------------------|---------------------------|-------------------|
|                 |       |         | 4 1 <sup>st</sup> + 2 <sup>nd</sup> Migration |                     | 3 <sup>rd</sup> Migration |                   |
|                 |       |         | Result  | 7xSRL <sup>*2</sup> | Result                    | SRL <sup>*1</sup> |
| Aluminum (Al)   | mg/kg | 0.5     | ND  | 35                  | ND                        | 5                 |
| Antimony (Sb)   | mg/kg | 0.01    | ND  | 0.28                | ND                        | 0.04              |
| Chromium (Cr)   | mg/kg | 0.05    | ND  | 1.75                | ND                        | 0.25              |
| Cobalt (Co)     | mg/kg | 0.005   | ND  | 0.14                | ND                        | 0.02              |
| Copper (Cu)     | mg/kg | 0.5     | ND  | 28                  | ND                        | 4                 |
| Iron (Fe)       | mg/kg | 5       | ND  | 280                 | ND                        | 40                |
| Manganese (Mn)  | mg/kg | 0.2     | ND  | 12.6                | ND                        | 1.8               |
| Molybdenum (Mo) | mg/kg | 0.01    | ND  | 0.84                | ND                        | 0.12              |
| Nickel (Ni)     | mg/kg | 0.01    | ND  | 0.98                | ND                        | 0.14              |
| Silver (Ag)     | mg/kg | 0.01    | ND  | 0.56                | ND                        | 0.08              |
| Tin*3 (Sn)      | mg/kg | 5       | ND  | 700                 | ND                        | 100               |
| Vanadium (V)    | mg/kg | 0.001   | ND  | 0.07                | ND                        | 0.01              |
| Zinc (Zn)       | mg/kg | 0.5     | ND  | 35                  | ND                        | 5                 |
| Arsenic (As)    | mg/kg | 0.0005  | ND  | 0.014               | ND                        | 0.002             |
| Barium (Ba)     | mg/kg | 0.1     | ND  | 8.4                 | ND                        | 1.2               |
| Beryllium (Be)  | mg/kg | 0.001   | ND  | 0.07                | ND                        | 0.01              |
| Cadmium (Cd)    | mg/kg | 0.001   | ND  | 0.035               | ND                        | 0.005             |
| Lead (Pb)       | mg/kg | 0.001   | ND  | 0.07                | ND                        | 0.01              |
| Lithium (Li)    | mg/kg | 0.005   | ND  | 0.336               | ND                        | 0.048             |
| Mercury (Hg)    | mg/kg | 0.0005  | ND  | 0.021               | ND                        | 0.003             |
| Thallium (TI)   | mg/kg | 0.00005 | ND  | 0.0007              | ND                        | 0.0001            |

#### Note:

(1) mg/kg =milligram per kilogram

(2) MDL = method detection limit

- (3) ND = not detected (<MDL)
- (4) SRL = Specific Release Limit
- (5) \*1 Compliance is established on the result from the third migration test for repeated used articles.
- (6) \*2 Meantime, the sum of the results of the first and second tests should not exceed 7 times the SRL
- (7) \*3 Except in field of application under Regulation (EC) No.1881/2006.(canned food container)
- (8) Test condition & simulant were specified by client.

\*\*\*END OF THE REPORT\*\*\*