

TEST REPORT

<u>APPLICANT</u>	: Xindao B.V.
<u>ADDRESS</u>	: P.O. Box 3082, 2280 GB, Rijswijk, The Netherlands
<u>SAMPLE DESCRIPTION</u>	: Sport bottle with straw
<u>ITEM NO.</u>	: P433.16*
<u>COUNTRY OF ORIGIN</u>	: China
<u>COUNTRY OF DESTINATION</u>	: Europe
<u>SAMPLE RECEIVED DATE</u>	: 17-Jun-2014
<u>FURTHER INFORMATION DATE</u>	: 20-Jun-2014
<u>TURN AROUND TIME</u>	: 20-Jun-2014 To 27-Jun-2014, 6 working days
<u>TEST REQUESTED</u>	: Selected test(s) as requested by client
<u>TEST METHOD</u>	: Please refer to next page(s)
<u>TEST RESULTS</u>	: Please refer to next page(s)
<u>CONCLUSION</u>	<p>: When tested as specified, the submitted sample(s) (AS&PP) comply with the overall migration requirements stated in European Commission Regulation (EU) No 10/2011 and its amendment (EU) No 1282/2011 on plastic materials and articles intended to come into contact with food.</p> <p>When tested as specified, the submitted sample(s) (AS&PP) comply with the specific migration of heavy metal requirements stated in European Commission Regulation (EU) No 10/2011 and its amendment (EU) No 1282/2011 on plastic materials and articles intended to come into contact with food.</p> <p>When tested as specified, the submitted sample(s) (Stainless steel) comply with the specific release of heavy metals requirements stated in Council of Europe Resolution CM/Res (2013)9 relating to metals and alloys used in food contact materials and articles.</p> <p>When tested as specified, the submitted sample(s) (silicone rubber) comply with the overall migration stated in the Council of Europe Resolution AP (2004) 5 relating to silicone rubber materials and articles intended to come into contact with food.</p>

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 sh.info@eurofins.com 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.

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***** FOR FURTHER DETAILS, PLEASE REFER TO THE FOLLOWING PAGE(S) *****

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



Chris Zhang
Lab Manager

SAMPLE PHOTO



EFSH14061114-CG

TO BE CONTINUED

COMPONENT LIST

Component No.	Component
1	Transparent plastic mouth (AS)
2	Black plastic lid (PP)
3	Transparent plastic straw (PP)
4	Silvery stainless steel (body)
5	Transparent silicone rubber

TO BE CONTINUED

TEST RESULT

Overall Migration

Test Requested : To determine the Overall Migration for compliance with European Commission Regulation (EU) No 10/2011 and its amendment (EU) No 1282/2011 relating to plastic materials and articles intended to come into contact with foodstuffs.

Test Method : With reference to EN1186-1:2002 for selection of conditions and 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 Limit	Result (mg/dm ²)		
				1	2	3
3% Acetic Acid	24hrs	70°C	10 mg/dm ²	4.44	3.17	<3.0
50% Ethanol	24hrs	70°C	10 mg/dm ²	3.61	3.46	<3.0

Note:

- (1) mg/dm²=milligram per square decimeter
- (2) Analytical tolerance of aqueous simulants is 1 mg/dm²
- (3) Analytical tolerance of fatty food simulants is 3 mg/dm²
- (4) Test condition & simulant were specified by client.

TO BE CONTINUED

TEST RESULT

Specific Migration of Heavy Metal

Test Requested : To determine the Specific Migration of Heavy Metal for compliance with European Commission Regulation (EU) No 10/2011 and its amendment (EU) No 1282/2011 on plastic materials and articles intended to come into contact with food.

Test Method : With reference to EU 10/2011 for selection of test method; analysis was performed by ICP-OES.

Simulant used: 3% Acetic Acid (W/V) Aqueous Solution.

Test condition: 70°C 24hours

Test Item(s)	Max. Permissible limit	Unit	MDL	Test Result		
				1	2	3
Barium	1	mg/kg	0.25	ND	ND	ND
Cobalt	0.05	mg/kg	0.05	ND	ND	ND
Copper	5	mg/kg	0.25	ND	ND	ND
Iron	48	mg/kg	0.25	ND	ND	ND
Lithium	0.6	mg/kg	0.5	ND	ND	ND
Manganese	0.6	mg/kg	0.25	ND	ND	ND
Zinc	25	mg/kg	0.5	ND	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.

TO BE CONTINUED

TEST RESULT

Specific Release of Heavy Metals

Test Requested : 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 24 hours

Test Item(s)	Unit	MDL	Result			
			1 st + 2 nd Migration		3 rd Migration	
			4	7xSRL ^{*2}	4	SRL ^{*1}
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	0.0366	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 (Tl)	mg/kg	0.00005	ND	0.0007	ND	0.0001

Note:

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

TO BE CONTINUED

TEST RESULT

Overall migration

Test Requested : In accordance with Council of Europe Resolution AP (2004) 5.
For material: Silicone rubber – Overall migration test.

Test Method : With reference to EN 1186-1:2002 for selection of conditions and test methods;
or EN 1186-3:2002 aqueous food simulants by total immersion method;
or EN 1186-9:2002 aqueous food simulants by article filling method;
or EN 1186-2:2002 olive oil by total immersion method;
or EN 1186-8:2002 olive oil by article filling method;
or EN 1186-14:2002 substitute test.

Simulant used	Time	Temperature	Max. Permissible Limit	Result (mg/dm ²)
				5
3% Acetic Acid	24hrs	70°C	10 mg/dm ²	7.16
50% Ethanol	24hrs	70°C	10 mg/dm ²	5.80

Note:

- (1) mg/dm²=milligram per square decimeter
- (2) Analytical tolerance of aqueous simulants is 1 mg/dm²
- (3) Analytical tolerance of fatty food simulants is 3 mg/dm²
- (4) Test condition & simulant were specified by client.

*** END OF THE REPORT ***