



TEST REPORT

Test Report # R-us7-181 Date of Report Issue: May 25, 2018
 Date of Sample Received: May 22, 2018 Pages: Page 1 of 15

CLIENT INFORMATION:

Company: [Redacted]
 Address: We cover this to protect our clients.



SAMPLE INFORMATION:

Product Name: Water Bottle Testing- PO 60440
 Model/style No.: -
 PO No.: -
 Buyer: -
 Supplier: -
 Country of Distribution: US
 Country of Origin: China
 Testing Period: 05/22/2018-05/25/2018

OVERALL RESULT:

PASS

Refer to page 2 for test result summary and appropriate notes.

HANGZHOU ASIAINSPECTION
 TESTING TECHNOLOGY CO., LTD

Kevin Lee

Kevin Lee
 Technical Manager





TEST REPORT

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TEST RESULTS SUMMARY:

At the request of the client, the following tests were conducted:

CONCLUSION	TEST(S) CONDUCTED
PASS	Regulation (EC) No 1935/2004, (EU) No 10/2011 -Sensorial examination odour and taste test
PASS	Regulation (EC) No 1935/2004, (EU) No 10/2011 and its amendment (EU) 2016/1416 and Res AP(2004)5- Overall migration
PASS	Regulation (EC) No 1935/2004, (EU) No 10/2011 and its amendment (EU) 2016/1416- Specific migration of heavy metals
PASS	Regulation (EC) No 1935/2004, (EU) No 10/2011 -Specific migration of Primary Aromatic Amines
PASS	Regulation (EC) No 1935/2004, (EU) No 10/2011- Phthalates content
PASS	Regulation (EC) No 1935/2004 and Council of Europe Resolution CM Res(2013)9 on metals and alloys used in food contact materials and articles - Specific release of heavy metals
PASS	German Food, Articles of Daily Use and Feed Code of September 1, 2005(LFGB) Section 30 & 31 and BfR recommendation-Total lead and total cadmium content
PASS	German Food, Articles of Daily Use and Feed Code of September 1, 2005(LFGB), Section 30&31 with amendments –Specific Migration of Colourants
PASS	German Food, Articles of Daily Use and Feed Code of September 1, 2005 (LFGB) Section 30 and BfR recommendation- Volatile Organic Matter
PASS	German Product Safety Act (ProdSG) Article 21 (1) No. 3, Polycyclic Aromatic Hydrocarbon (PAH)
PASS	Client’s requirement, Bisphenol A content





DETAILED RESULTS:

Regulation (EC) No 1935/2004, (EU) No 10/2011 -Sensorial examination odour and taste test

Test Method: DIN 10955: 2004
Test condition: 100°C, 2 hours
Test media: Distilled water
No. of panelist: 6

Specimen No.	4	-	-	-	Max.Permissible Limit
Test Item	Result	Result	Result	Result	
Sensorial examination odour (Point scale)	0	-	-	-	2.5
Sensorial examination taste (Point scale)	0	-	-	-	2.5
Conclusion	PASS	-	-	-	

Scale evaluation:
0: No perceptible odour
1: Odour just perceptible (still difficult to define)
2: Moderate odour
3: Moderately strong odour
4: Strong odour





DETAILED RESULTS:

**Regulation (EC) No 1935/2004, (EU) No 10/2011 and its amendment (EU) 2016/1416 and Res AP(2004)5-
Overall migration**

Test method: EN1186-1:2002: for selection of conditions and test methods
EN1186-3:2002: aqueous food simulants by total immersion

Specimen No.		1	2	-	Maximum permissible Limit (mg/dm ²)
Simulant used	Test condition	Result (mg/dm ²)	Result (mg/dm ²)	Result (mg/dm ²)	
3% acetic acid	2 hours at 100°C	ND	ND	-	10
50% ethanol	2 hours at 100°C	ND	ND	-	10
Conclusion		PASS	PASS	-	

Note:

mg/dm² = milligram per square decimeter

ND = Not Detected (Reporting limit = 3 mg/dm²)



**DETAILED RESULTS:****Regulation (EC) No 1935/2004, (EU) No 10/2011 and its amendment (EU) 2016/1416- Specific migration of heavy metals**

Test method: Sample preparation in 3% acetic acid at 100°C for 2hours

Analytical Method: Inductively Coupled Plasma-Mass Spectrometry

Specimen No.		1	-	-	-	Maximum permissible Limit (mg/kg)
Test Item	Detection limit	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Barium	0.1	ND	-	-	-	1
Cobalt	0.05	ND	-	-	-	0.05
Copper	0.5	ND	-	-	-	5
Iron	1.0	ND	-	-	-	48
Lithium	0.1	ND	-	-	-	0.6
Manganese	0.1	ND	-	-	-	0.6
Zinc	1.0	ND	-	-	-	5
Aluminum	0.1	ND	-	-	-	1
Nickel	0.01	ND	-	-	-	0.02
Conclusion		PASS	-	-	-	

Note:

mg/kg=milligram per kilogram

ND= Not Detected



**DETAILED RESULTS:****Regulation (EC) No 1935/2004, (EU) No 10/2011 -Specific migration of Primary Aromatic Amines**

Test Method: To refer to the EN 13130-1:2004, the analysis was performed by Gas Chromatography with Mass Spectrometry.

Specimen No.		1	-	-	-	Limit (mg/kg)
Test Item	Test condition	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Primary Aromatic Amines migration	100°C, 2h 3% Acetic acid	ND	-	-	-	Non-detectable
Conclusion		PASS	-	-	-	

Note :

mg/kg = milligram per kilogram = ppm

MDL = Method Detection Limit

ND = Not Detected (Reporting Limit= 0.01mg/kg)

Primary Aromatic Amines List:

No.	Name	No.	Name
1	4-aminodiphenyl	14	p-cresidine
2	Benzidine	15	4,4'-methylene-bis-(2-chloroaniline)
3	4-chloro-o-toluidine	16	4,4'-oxydianiline
4	2-naphthylamine	17	4,4'-thiodianiline
5	o-aminoazotoluene	18	o-toluidine
6	2-amino-4-nitrotoluene	19	2,4-diaminotoluene
7	p-chloroaniline	20	2,4,5-trimethylaniline
8	2,4-diaminoanisole	21	2-methoxyaniline
9	4,4'-diaminodiphenylmethane	22	4-aminoazobenzene
10	3,3'-dichlorobenzidine	23	2,4-Xylidine
11	3,3'-dimethoxybenzidine	24	2,6-Xylidine
12	3,3'-dimethylbenzidine	25	p-Phenylenediamine
13	3,3'-dimethyl-4,4'-diaminodiphenylmethane	26	Aniline



**DETAILED RESULTS:****Regulation (EC) No 1935/2004, (EU) No 10/2011- Phthalates content**

Test Method: CPSC-CH-C1001-09.3

Analytical Method: Gas Chromatography with Mass Spectrometry

Specimen No		1	-	-	-	-	Max. Permissible Limit (% m/m)
Test Item	CAS No.	Result (% m/m)	Result (% m/m)	Result (% m/m)	Result (% m/m)	Result (% m/m)	
DBP	84-74-2	ND	-	-	-	-	0.05
BBP	85-68-7	ND	-	-	-	-	0.1
DEHP	117-81-7	ND	-	-	-	-	0.1
DINP	68515-48-0	ND	-	-	-	-	0.1
DIDP	68515-49-1	ND	-	-	-	-	0.1
DEHA	103-23-1	ND	-	-	-	-	-
DAP	131-17-9	ND	-	-	-	-	-
Conclusion		PASS	-	-	-	-	

Note:

DBP= Dibutyl phthalate, BBP= Butyl benzyl phthalate, DEHP=Di-2-ethylhexyl phthalate, DINP= Di-*iso*-nonyl phthalate, DIDP= Di-*iso*-decyl phthalate, DEHA= Bis-(2-ethylhexyl) adipate, DAP= Phthalic acid, diallyl ester
% m/m = Percent by mass

LT = Less than

ND = Not detected (Reporting Limit = 0.015 % m/m)



**DETAILED RESULTS:****Regulation (EC) No 1935/2004 and Council of Europe Resolution CM Res(2013)9 on metals and alloys used in food contact materials and articles - Specific release of heavy metals**

Test method: Sample preparation in 0.5%(5g/L) citric acid/ Artificial tap water at 70°C for 4hours, followed by analysis using ICP-OES&ICP-MS

Specimen No:	3					
Test Item(s)	Unit	MDL	1 st + 2 nd Migration		3 rd Migration	
			Result	7xSRL* ²	Result	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	0.1	ND	1.75	ND	0.25
Cobalt (Co)	mg/kg	0.01	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
Magnesium(Mg)	mg/kg	0.1	ND	-	ND	-
Manganese (Mn)	mg/kg	0.5	ND	12.6	ND	1.8
Molybdenum (Mo)	mg/kg	0.05	ND	0.84	ND	0.12
Nickel (Ni)	mg/kg	0.05	ND	0.98	ND	0.14
Silver (Ag)	mg/kg	0.05	ND	0.56	ND	0.08
Tin* ³ (Sn)	mg/kg	5	ND	700	ND	100
Titanium(Ti)	mg/kg	0.1	ND	-	ND	-
Vanadium (V)	mg/kg	0.005	ND	0.07	ND	0.01
Zinc (Zn)	mg/kg	0.5	ND	35	ND	5
Arsenic (As)	mg/kg	0.001	ND	0.014	ND	0.002
Barium (Ba)	mg/kg	0.1	ND	8.4	ND	1.2
Beryllium (Be)	mg/kg	0.005	ND	0.07	ND	0.01
Cadmium (Cd)	mg/kg	0.001	ND	0.035	ND	0.005
Lead (Pb)	mg/kg	0.005	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
Conclusion	PASS					

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)





DETAILED RESULTS:

German Food, Articles of Daily Use and Feed Code of September 1, 2005(LFGB) Section 30 & 31 and BfR recommendation-Total lead and total cadmium content

Analysis performed by Inductively Coupled Plasma-Optical Emission Spectrometry to determine compliance with the above referenced specification.

[Referenced Test Method: AI | HANGZHOU Method]

Specimen No.	2	-	-	-	-	Limit (mg/kg)
Test Item	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Total Pb	ND	-	-	-	-	90
Total Cd	ND	-	-	-	-	100
Conclusion	PASS	-	-	-	-	

Note:

Pb=Lead

Cd=Cadmium

mg/kg = Milligrams per kilogram

ND = Not detected(reporting limit=15mg/kg)





DETAILED RESULTS:

German Food, Articles of Daily Use and Feed Code of September 1, 2005(LFGB), Section 30&31 with amendments –Specific Migration of Colourants

food simulant	test duration/temperature
3% acetic acid, 50% ethanol	5 h / 50°C

Specimen No.	2	-	-
Parameter	Result	Result	Result
Conditions of migration			
3% acetic acid	No visible migration	-	-
50% ethanol	No visible migration	-	-
Conclusion	PASS	-	-

According to AP(89)1, colourants should be sufficiently integrated within plastic materials and articles so as to preclude any visible migration into foodstuffs under normal conditions of use, as determined by appropriate method.





DETAILED RESULTS:

German Food, Articles of Daily Use and Feed Code of September 1, 2005 (LFGB) Section 30 and BfR recommendation- Volatile Organic Matter

Analysis performed by gravimetric method to determine compliance with the above referenced regulation. [Referenced Test Method: Bundesgesundheitsbl. 22 (1979) P339#]

Specimen No.		2	-	-	-	Limit (%w/w)
Test Item	Test condition	Result (% w/w)	Result (% w/w)	Result (% w/w)	Result (% w/w)	
Volatile Organic Matter	100°C,2h	0.4	-	-	-	0.5
Conclusion		PASS	-	-	-	

Note:

% w/w = Percent by weight

ND = Not detected (Reporting Limit = 0.1%)

LT = Less than



**DETAILED RESULTS:****German Product Safety Act (ProdSG) Article 21 (1) No. 3, Polycyclic Aromatic Hydrocarbon (PAH)**

Test Method: AfPS GS 2014:01 PAK

Analytical Method: Gas Chromatography with Mass Spectrometry

Category 1: Materials, that are intended to be put in the mouth, or materials in toys with Intended and prolonged skin-Contact (Longer than 30 Seconds)

Specimen No.	2	-	-	-	Limit (mg/kg)	
Test Item	CAS No.	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Benzo (a) pyrene	50-32-8	ND	-	-	-	0.2
Benzo (e) pyrene	192-97-2	ND	-	-	-	0.2
Benzo (a) anthracene	56-55-3	ND	-	-	-	0.2
Benzo (b) fluoranthene	205-99-2	ND	-	-	-	0.2
Benzo (j) fluoranthene	205-82-3	ND	-	-	-	0.2
Benzo (k) fluoranthene	207-08-9	ND	-	-	-	0.2
Chrysene	218-01-9	ND	-	-	-	0.2
Dibenzo (a,h) anthracene	53-70-3	ND	-	-	-	0.2
Benzo (g,h,i) perylene	191-24-2	ND	-	-	-	0.2
Indeno (1,2,3-cd) pyrene	193-39-5	ND	-	-	-	0.2
Acenaphthylene	208-96-8	ND	-	-	-	
Acenaphthene	83-32-9	ND	-	-	-	
Fluorene	86-73-7	ND	-	-	-	
Phenanthrene	85-01-8	ND	-	-	-	
Pyrene	129-00-0	ND	-	-	-	
Anthracene	120-12-7	ND	-	-	-	
Fluoranthene	206-44-0	ND	-	-	-	
Sum of Acenaphthylene, Acenaphthene, Fluorene, Phenanthrene, Pyrene, Anthracene, Fluoranthene		ND	-	-	-	1
Naphthalene	91-20-3	ND	-	-	-	1
Sum of 18 PAH		ND	-	-	-	1
Conclusion		PASS	-	-	-	

Note:

mg/kg = Milligrams per kilogram

LT = Less than

ND = Not detected (Reporting Limit = 0.2 mg/kg)





DETAILED RESULTS:

Client's requirement, Bisphenol A content

Test method: US EPA 3550C:2007 & US EPA 8270D:2014
Analytical Method: Gas Chromatography-Mass Spectrometer

Sample No.:	2	-	-	-	-	Client's limit (mg/kg)
Test Item	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Bisphenol A (BPA)	ND	-	-	-	-	Not Detected
Conclusion	PASS	-	-	-	-	

Note:
mg/kg=milligram per kilogram
ND=Not Detected(Reporting limit = 1mg/kg)



**SPECIMEN DESCRIPTION:**

Specimen No.	Specimen Description	Location
1	Black PP	Lid
2	Translucent silicone.	Seal ring
3	Silver metal	Bottle
4	Water bottle testing- PO 60440	Finished product





SAMPLE PHOTO:



-End Report-

