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TEST REPORT

Test Report No. : 4380976.50 Version 1
Project No. : 4380976.00
Test Report Date : 2021-10-08

Job No. : 21-01921

Applicant : Flashbay Electronics

Building2 ,Jixun Industrial Park ,Xinjiao ,Dong'ao Village ,Shatian
Town ,Huiyang District ,Huizhou City , Guangdong Province,P.R.China

Product Name : Water Bottle

Model No. : Aqualok-QL

Test Requested : RoHS Directive 2011/65/EU & Amendment Directive 2015/863/EU
- Lead, Mercury, Cadmium, Hexavalent chromium,
- Polybrominated biphenyls (PBB),
- Polybrominated diphenyl ethers (PBDE),
- Bis(2-ethylhexyl) phthalate (DEHP),
- Butyl benzyl phthalate (BBP),
- Dibutyl phthalate (DBP),
- Diisobutyl phthalate (DIBP)

Test Method : Please refer to next pages


Sample Received : 2021-09-22

Testing Period : 2021-09-22 to 2021-09-27

Test Results

- following pages -

Resume:

Parameter	Product Name: Water Bottle
	Model No.: Aqualok-QL
	
RoHS Directive 2011/65/EU & Amendment Directive 2015/863/EU	PASS

Guangzhou, October 08, 2021

Signed for and on behalf of

DEKRA Testing and Certification (Shanghai) Ltd., Guangzhou branch

Chemical & Mechanical




Devin Ai
Approved Signatory

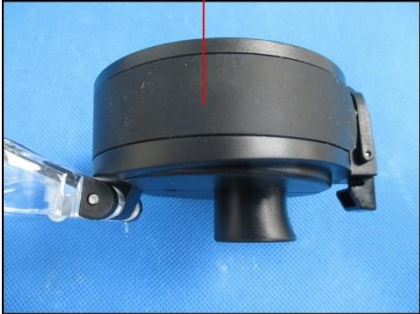
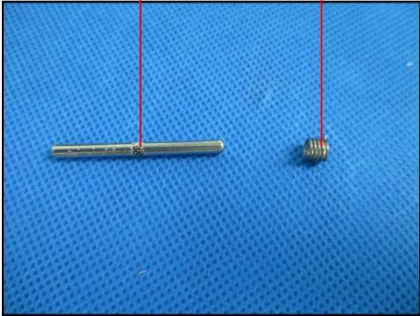

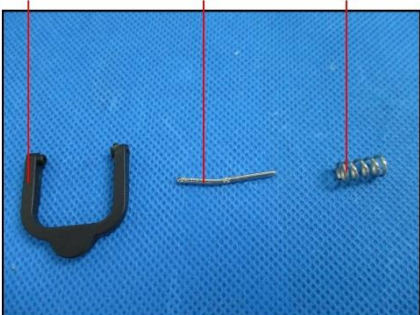
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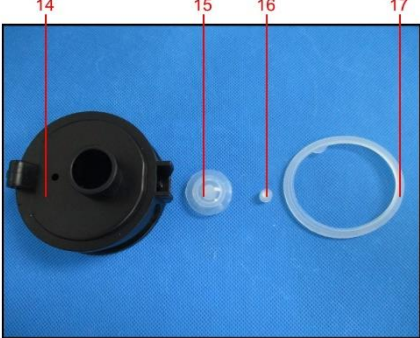



TEST RESULTS

RoHS Directive 2011/65/EU & Amendment Directive 2015/863/EU

Test Components:

Test No.	Name of material	Photograph
1	Black plastic	
2	Black fibre	
3	Black plastic	
4	Black plastic	
5	Transparent plastic	

Test No.	Name of material	Photograph
6	Black rubber	
7	Silvery metal	
8	Silvery metal	
9	Brown gum	
10	Black plastic	
11	Black plastic	
12	Silvery metal	
13	Silvery metal spring	

Test No.	Name of material	Photograph
14	Black plastic	
15	Translucent rubber	
16	Translucent rubber	
17	Translucent rubber	
18	Green rubber	
19	Blue rubber	
20	Green plastic	
21	Blue plastic	

A. Screening Test

Test No.	Result (mg/kg)				
	Pb	Cd	Hg	Cr	Br
1	BL	BL	BL	BL	BL
2	BL	BL	BL	BL	BL
3	BL	BL	BL	BL	BL
4	BL	BL	BL	BL	BL
5	BL	BL	BL	BL	BL
6	BL	BL	BL	BL	BL
7	BL	BL	BL	IC	N.A.
8	BL	BL	BL	IC	N.A.
9	BL	BL	BL	BL	BL
10	BL	BL	BL	BL	BL
11	BL	BL	BL	BL	BL
12	BL	BL	BL	IC	N.A.
13	BL	BL	BL	IC	N.A.
14	BL	BL	BL	BL	BL
15	BL	BL	BL	BL	BL
16	BL	BL	BL	BL	BL
17	BL	BL	BL	BL	BL
18	BL	BL	BL	BL	BL
19	BL	BL	BL	BL	BL
20	BL	BL	BL	BL	BL
21	BL	BL	BL	BL	BL

Remark:

1. mg/kg = Milligram per kilogram
2. BL = Below Limit
3. **OL** = **Over Limit, represents test item needs further confirmation.**
4. **IC** = **Inconclusive, represents test item needs further confirmation.**
5. N.A. = Not Applicable
6. There are the results on total Br while test items on restricted substances are PBBs and PBDEs.
There are the results on total Cr while test item on restricted substance is Cr(VI).

Disclaimers:

This XRF screening result is for reference purposes only. The applicant shall make its/his/her own judgment as to whether the information provided in this XRF screening report is sufficient for its/his/her purposes. The results shown in this XRF screening report will differ based on various factors, including but not limited to, the sample size, thickness, area, surface flatness, equipment parameters and matrix effect (e.g. plastic, rubber, metal, glass, ceramic etc.).

B. Chemical Test

Test Item	Result			
	(7)	(8)	(12)	(13)
Hexavalent Chromium Cr(VI)	Negative	Negative	Negative	Negative

Remark:

1. N.D. = Not Detected, less than MDL
2. mg/kg = Milligram per kilogram
3. According to IEC 62321-7-1:2015 Ed.1.0, result on Cr(VI) for metal sample is shown as Positive/Negative.

Negative = Absence of Cr(VI) in coating layer, Positive = Presence of Cr(VI) in coating layer.

Note:

Results were obtained by EDXRF for primary screening, and further chemical testing by ICP-OES (for Cd, Pb, Hg), UV-Vis (for Cr(VI)) and GC-MS (for PBBs, PBDEs) were recommended to be performed, if the concentration exceeded the warning value according to IEC 62321-3-1:2013 Ed. 1.0 (unit: mg/kg).

C. Phthalates Test

For plasticised material(s) in test components

Test Item	Result (mg/kg)			MDL (mg/kg)	Limit # (mg/kg)
	(2)	(9)/(16)	(11)/(14)		
Bis(2-ethylhexyl) phthalate (DEHP)	N.D.	N.D.	N.D.	50	1000
Butyl benzyl phthalate (BBP)	N.D.	N.D.	N.D.	50	1000
Dibutyl phthalate (DBP)	N.D.	N.D.	N.D.	50	1000
Diisobutyl phthalate (DIBP)	N.D.	N.D.	N.D.	50	1000

Test Item	Result (mg/kg)		MDL (mg/kg)	Limit # (mg/kg)
	(1)/(3)/(4)	(5)/(6)/(10)		
Bis(2-ethylhexyl) phthalate (DEHP)	N.D.	N.D.	50	1000
Butyl benzyl phthalate (BBP)	N.D.	N.D.	50	1000
Dibutyl phthalate (DBP)	N.D.	N.D.	50	1000
Diisobutyl phthalate (DIBP)	N.D.	N.D.	50	1000

Test Item	Result (mg/kg)		MDL (mg/kg)	Limit # (mg/kg)
	(15)/(17)/(18)	(19)/(20)/(21)		
Bis(2-ethylhexyl) phthalate (DEHP)	N.D.	N.D.	50	1000
Butyl benzyl phthalate (BBP)	N.D.	N.D.	50	1000
Dibutyl phthalate (DBP)	N.D.	N.D.	50	1000
Diisobutyl phthalate (DIBP)	N.D.	N.D.	50	1000

Remark:

1. N.D. = Not Detected (below MDL)
2. MDL = Method Detection Limit
3. mg/kg = Milligram per kilogram
4. # = The limit for the test result is 1/n of the value in column (where "n" is the number of mixed samples).

Test Method

A. Screening test by XRF spectroscopy: With reference to IEC 62321-3-1: 2013 Ed. 1.0 Screening - Lead, mercury, cadmium, total chromium and total bromine using X-ray fluorescence spectrometry.

Screening limits in mg/kg for regulated elements in various material.

Element	Polymer Material	Metallic Material	Composite Material
Cadmium (Cd)	BL≤70<IC<130≤OL	BL≤70<IC<130≤OL	LOD<IC<150≤OL
Lead (Pb)	BL≤700<IC<1300≤OL	BL≤700<IC<1300≤OL	BL≤500<IC<1500≤OL
Mercury (Hg)	BL≤700<IC<1300≤OL	BL≤700<IC<1300≤OL	BL≤500<IC<1500≤OL
Bromine (Br)	BL≤300<IC	N.A.	BL≤250<IC
Chromium (Cr)	BL≤700<IC	BL≤700<IC	BL≤500<IC

BL = Below Limit, OL = Over Limit, IC=Inconclusive, N.A. = Not Applicable, LOD=Limit of Detection

B. Chemical Test

Test Item	Test Method	Test Instrument	MDL	EU RoHS Limit (mg/kg)
Lead (Pb)	IEC 62321-5: 2013 Ed. 1.0 Sec.7	ICP-OES	5mg/kg	1000
Cadmium (Cd)	IEC 62321-5: 2013 Ed. 1.0 Sec.7	ICP-OES	5mg/kg	100
Mercury (Hg)	IEC 62321-4: 2013 AMD 1:2017 Ed. 1.0 Sec.7	ICP-OES	5mg/kg	1000
Hexavalent Chromium (Cr(VI))	IEC 62321-7-1:2015 Ed.1.0 Sec.7	UV-Vis	0.1µg/cm ²	1000
	IEC 62321-7-2:2017 Ed.1.0 Sec.7	UV-Vis	2mg/kg	
Polybrominated Biphenyls (PBBs)	IEC 62321-6: 2015 Ed. 1.0 Sec.8	GC-MS	10mg/kg	1000
Polybrominated Diphenyl Ethers (PBDEs)	IEC 62321-6: 2015 Ed. 1.0 Sec.8	GC-MS	10mg/kg	1000
Bis(2-ethylhexyl) phthalate (DEHP)	IEC 62321-8: 2017 Ed. 1.0 Sec.8	GC-MS	50mg/kg	1000
Butyl benzyl phthalate (BBP)	IEC 62321-8: 2017 Ed. 1.0 Sec.8	GC-MS	50mg/kg	1000
Dibutyl phthalate (DBP)	IEC 62321-8: 2017 Ed. 1.0 Sec.8	GC-MS	50mg/kg	1000
Diisobutyl phthalate (DIBP)	IEC 62321-8: 2017 Ed. 1.0 Sec.8	GC-MS	50mg/kg	1000

---End of Report---