Report No. 4951733.54 Version 1 **Issued Date: 2026-04-20**

Test Report

Client	:	Flashbay Electronics Huizhou Building2, Jixun Industrial Park, Xinjiao, Dong'ao Village, Shatian Town, Huiyang District, Huizhou City, Guangdong Province, P.R. China
Product Name	:	Water Bottles
Type(s)	:	Orion (OI)
Reference Information [Δ]	:	Refer to Annex

The information and sample(s) above were submitted and identified by or on behalf of the client.

Sample Received	:	2026-01-27
Testing Period	:	2026-01-27 to 2026-02-28

Test Requested		***Result***
1.	Regulation (EC) No 1935/2004, Regulation (EU) 10/2011, EU 2020/1245 and its amendments	
	- Overall migration	PASS
	- Specific migration of heavy metals	PASS
	- Specific migration of primary aromatic amine	PASS
2.	Council Europe Resolution AP (2004) 5 on Silicones Used for Food Contact Applications	
	- Overall migration	PASS
3.	EDQM 2nd Edition 2024 Technical guide for manufacturers and regulators on metals and alloys Used in Food Contact Materials and Articles	
	- Extractable heavy metals (24 elements)	PASS

Signed for and on behalf of

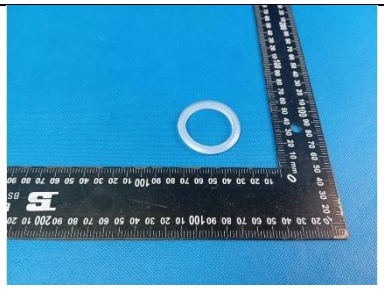
DEKRA Testing and Certification (Shanghai) Ltd., Guangzhou branch

Devin Ai

Approver

Picture of Sample Tested

Tested Sample Description:

No.	Specimen Description	Material(s) (claimed by applicant)	Photo
1.	Inner	AISI 304	
2.	Sealing Gaskets	Silicone (White)	
3.	Cover	PP (Black)	

TEST RESULTS

1. Regulation (EC) No 1935/2004, Regulation (EU) 10/2011, EU 2020/1245 and its amendments

Overall migration

With reference to (EU) No.10/2011 and its amendments, analysis by method EN 1186-3: 2022.

Parameter	Test Condition	Result (mg/dm^2) (3)			Limit (mg/dm^2)
		1st	2nd	3rd	
Overall migration	20%(v/v) Ethanol, 100℃, 4 h	<3	<3	<3	10
	3%(w/v) Acetic acid, 100℃, 4 h	5.5	5.3	3.3	10

Remark:

1. mg/dm^2 = milligram per square decimeter

Specific migration of heavy metals

With reference to (EU) No. 2020/1245 for selection of conditions and test method for specific migration. Analysis was performed by inductively coupled plasma optical emission spectrometer (ICP-OES) and inductively coupled plasma mass spectrometer (ICP-MS).

Parameter	Test Condition	Result (mg/kg) (3)			MDL (mg/kg)	Limit (mg/kg)
		1st	2nd	3rd		
Barium (Ba)	3%(w/v) Acetic acid, 100℃, 24 h	N.D.	N.D.	N.D.	0.1	1
Cobalt (Co)		N.D.	N.D.	N.D.	0.03	0.05
Copper (Cu)		N.D.	N.D.	N.D.	0.5	5
Iron (Fe)		N.D.	N.D.	N.D.	5.0	48
Lithium (Li)		N.D.	N.D.	N.D.	0.1	0.6
Manganese (Mn)		N.D.	N.D.	N.D.	0.1	0.6
Zinc (Zn)		N.D.	N.D.	N.D.	1	5
Aluminum (Al)		N.D.	N.D.	N.D.	0.5	1
Nickel (Ni)		N.D.	N.D.	N.D.	0.02	0.02
Antimony (Sb)		N.D.	N.D.	N.D.	0.01	0.04
Arsenic (As)		N.D.	N.D.	N.D.	0.01	N.D.
Cadmium (Cd)		N.D.	N.D.	N.D.	0.002	N.D.
Chromium (Cr)		N.D.	N.D.	N.D.	0.01	N.D.
Lead (Pb)		N.D.	N.D.	N.D.	0.01	N.D.

Parameter	Test Condition	Result (mg/kg) (3)			MDL (mg/kg)	Limit (mg/kg)
		1st	2nd	3rd		
Mercury (Hg)		N.D.	N.D.	N.D.	0.01	N.D.
Lanthanum (La)		N.D.	N.D.	N.D.	0.01	0.05
Europium (Eu)		N.D.	N.D.	N.D.	0.01	
Gadolinium (Gd)		N.D.	N.D.	N.D.	0.01	
Terbium (Tb)		N.D.	N.D.	N.D.	0.01	
Tungsten (W)		N.D.	N.D.	N.D.	0.01	0.05

Remark:

1. mg/kg = milligram per kilogram
2. N.D. = Not Detected (below MDL)
3. MDL = Method Detection Limit

Specific migration of Primary Aromatic Amine (PAA)

With reference to (EU) No. 2020/1245, analysis was performed by Liquid chromatography tandem mass spectrometry.

Parameter	Test Condition	Result (mg/kg) (3)			MDL (mg/kg)	Limit (mg/kg)
		1st	2nd	3rd		
4-Aminobiphenyl	3%(w/v) Acetic acid, 100℃, 24 h	N.D.	N.D.	N.D.	0.002	N.D.
Benzidine		N.D.	N.D.	N.D.	0.002	N.D.
4-Chloro-o-Toluidine		N.D.	N.D.	N.D.	0.002	N.D.
2-Naphthylamine		N.D.	N.D.	N.D.	0.002	N.D.
o-Aminoazotoluene		N.D.	N.D.	N.D.	0.002	N.D.
5-Nitro-o-toluidine		N.D.	N.D.	N.D.	0.002	N.D.
4-Chloro-Aniline		N.D.	N.D.	N.D.	0.002	N.D.
4-Methoxy-m-phenylenediamine		N.D.	N.D.	N.D.	0.002	N.D.
4,4’-Methylenedianiline		N.D.	N.D.	N.D.	0.002	N.D.
3,3'-Dichlorobenzidine		N.D.	N.D.	N.D.	0.002	N.D.
3.3'-Dimethoxybenzidine		N.D.	N.D.	N.D.	0.002	N.D.
3,3’-Dimethylbenzidine		N.D.	N.D.	N.D.	0.002	N.D.
4,4-Methylenedi-o-toluidine		N.D.	N.D.	N.D.	0.002	N.D.
2-Methoxy-5-Methylaniline		N.D.	N.D.	N.D.	0.002	N.D.
4,4'-Methylene bis(2-chloroaniline)		N.D.	N.D.	N.D.	0.002	N.D.
4,4-Diaminodiphenylether		N.D.	N.D.	N.D.	0.002	N.D.
4,4'-Thioaniline		N.D.	N.D.	N.D.	0.002	N.D.

Parameter	Test Condition	Result (mg/kg) (3)			MDL (mg/kg)	Limit (mg/kg)
		1st	2nd	3rd		
o-Toluidine		N.D.	N.D.	N.D.	0.002	N.D.
2,4-Toluenediamine		N.D.	N.D.	N.D.	0.002	N.D.
2,4,5-Trimethylaniline		N.D.	N.D.	N.D.	0.002	N.D.
o-Anisidine		N.D.	N.D.	N.D.	0.002	N.D.
4-Aminoazobenzol		N.D.	N.D.	N.D.	0.002	N.D.
Other PAAs		N.D.	N.D.	N.D.	0.002	0.01

Remark:

1. mg/kg = milligram per kilogram
2. N.D. = Not Detected (below MDL)
3. MDL = Method Detection Limit

2. Council Europe Resolution AP (2004) 5 on Silicones Used for Food Contact Applications

Overall migration

With reference to Resolution AP (2004) 5, analysis by method EN 1186-3: 2022.

Parameter	Test Condition	Result (mg/dm^2) (2)			Limit (mg/dm^2)
		1st	2nd	3rd	
Overall migration	20%(v/v) Ethanol, 100℃, 4 h	<3	<3	<3	10
	3%(w/v) Acetic acid, 100℃, 4 h	<3	<3	<3	10

Remark:

1. mg/dm^2 = milligram per square decimeter

3. EDQM 2nd Edition Technical guide for manufacturers and regulators on metals and alloys Used in Food Contact Materials and Articles

Extractable heavy metals (24 elements)

With reference to EQDM 2nd Edition 2024 on metals and alloys used in food contact materials and articles. Analyzed by inductively coupled plasma optical emission spectrometer (ICP-OES) and inductively coupled plasma mass spectrometer (ICP-MS).

Parameter	Result(s) of 1st + 2nd Migration (mg/kg)	MDL (mg/kg)	Limit (mg/kg)
	(1)		
Aluminium (Al)	N.D.	0.2	35
Barium (Ba)	N.D.	0.2	8.4
Chromium (Cr)	N.D.	0.1	7
Copper (Cu)	N.D.	0.2	28
Iron (Fe)	N.D.	0.2	280
Manganese (Mn)	N.D.	0.2	3.85
Nickel (Ni)	N.D.	0.1	0.98
Molybdenum (Mo)	N.D.	0.1	0.84
Magnesium (Mg)	N.D.	0.2	--
Titanium (Ti)	N.D.	0.2	--
Tin (Sn)	N.D.	2	700
Zinc (Zn)	N.D.	0.2	35
Zirconium (Zr)	N.D.	0.2	14
Beryllium (Be)	N.D.	0.02	0.07
Antimony (Sb)	N.D.	0.02	0.28
Mercury (Hg)	N.D.	0.004	0.021
Lithium (Li)	N.D.	0.02	0.336
Cobalt (Co)	N.D.	0.02	0.14
Silver (Ag)	N.D.	0.02	0.56
Lead (Pb)	N.D.	0.02	0.07
Vanadium (V)	N.D.	0.02	0.07
Arsenic (As)	N.D.	0.004	0.014
Cadmium (Cd)	N.D.	0.004	0.035
Thallium (Tl)	N.D.	0.0002	0.007

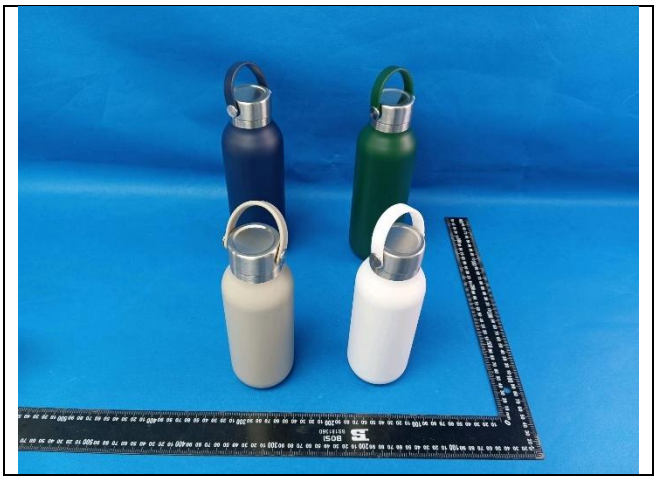
Parameter	Result(s) of 3rd Migration (mg/kg)	MDL (mg/kg)	Limit (mg/kg)
	(1)		
Aluminium (Al)	N.D.	0.1	5
Barium (Ba)	N.D.	0.1	1.2
Chromium (Cr)	N.D.	0.05	1.0
Copper (Cu)	N.D.	0.1	4
Iron (Fe)	N.D.	0.1	40
Manganese (Mn)	N.D.	0.1	0.55
Nickel (Ni)	N.D.	0.05	0.14
Molybdenum (Mo)	N.D.	0.05	0.12
Magnesium (Mg)	N.D.	0.1	--
Titanium (Ti)	N.D.	0.1	--
Tin (Sn)	N.D.	1	100
Zinc (Zn)	N.D.	0.1	5

Parameter	Result(s) of 3rd Migration (mg/kg)	MDL (mg/kg)	Limit (mg/kg)
	(1)		
Zirconium (Zr)	N.D.	0.1	2
Beryllium (Be)	N.D.	0.01	0.01
Antimony (Sb)	N.D.	0.01	0.04
Mercury (Hg)	N.D.	0.002	0.003
Lithium (Li)	N.D.	0.01	0.048
Cobalt (Co)	N.D.	0.01	0.02
Silver (Ag)	N.D.	0.01	0.08
Lead (Pb)	N.D.	0.01	0.01
Vanadium (V)	N.D.	0.01	0.01
Arsenic (As)	N.D.	0.002	0.002
Cadmium (Cd)	N.D.	0.002	0.005
Thallium (Tl)	N.D.	0.0001	0.001

Remark:

1. mg/kg = milligram per kilogram
2. N.D. = Not Detected (below MDL)
3. MDL = Method Detection Limit
4. The test condition was artificial tap water at 100℃ for 24 h.

Annex



△ The reference model information is provided by the client and claimed that the identical materials and/or construction as the tested samples are used. The samples displayed here are not tested samples and are for reference only DEKRA Testing and Certification (Shanghai) Ltd., Guangzhou branch takes no liability for information validation.

---End of Report---