Technical Report No. 64.165.19.00278.01A
Dated 2019-03-04

Client:	Guang Dong Xinbao Electrical Appliances Holdings Co., Ltd.
Address:	Zhenghe South Road, Leliu Town, Shunde district, Foshan City, Guangdong, China.
Sample Description:	Blender
Model No.:	BL9703A-GS,BL9703-GS
Sample Received Date:	2019-01-16
Test Period:	From 2019-01-16 to 2019-01-22
Purpose of examination:	As specified by client, to test as regulated by the German Food & Feed Acts LFGB (§ 30 & 31) and Regulation (EC) No.1935/2004
Test Result:	Refer to following page(s)
Remark:	(1) The result relates only to the items tested. (2) The photo and test data of sample 001 was quoted from sample 001 in technical report No.: 64.165.18.03690.01A Rev01 issued on 2018-08-01. (2) The photo and test data of samples 002-006 were quoted from samples 002-003, 005-007 in technical report No.: 64.165.18.00590.01D Rev01 issued on 2018-08-02.

TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch
TÜV SÜD Group

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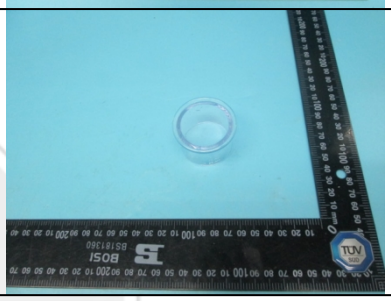
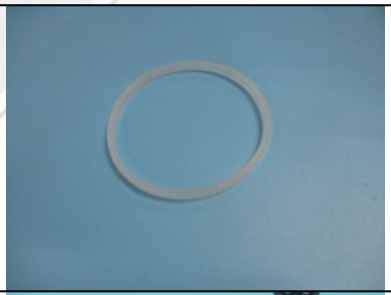
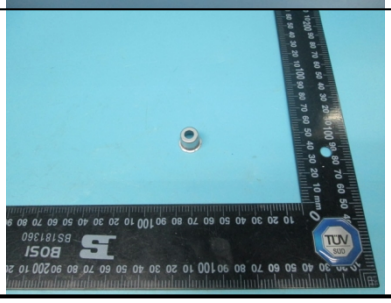
SUMMARY OF TEST RESULTS

No.	Test Requested	Conclusion	Remarks
1.	For material: Plastics or coating – Overall migration test for compliance with regulation (EU) No. 10/2011 and it's amendment (EU) No. 2016-1416, (EU) No. 2017-752 and (EU) No. 2018-79.	PASS	/
2.	For material: Plastics or coating – Specific Migration of Heavy Metals (Ba, Co, Cu, Fe, Li, Mn, Zn, Al, Ni, W) for compliance with regulation (EU) No. 10/2011 and it's amendment (EU) No. 2016-1416, (EU) No. 2017-752 and (EU) No. 2018-79.	PASS	/
3.	For material: Polypropylene (PP) – Total Chromium, Vanadium, Zirconium and Hafnium content	PASS	/
4.	For material: Polystyrene and styrene copolymers / Acrylic – Volatile Organic Components	PASS	/
5.	For material: Acrylonitrile copolymers – Specific Migration of Acrylonitrile for compliance with regulation (EU) No. 10/2011.	PASS	/
6.	For material: Glass and ceramics – Leachable Lead and Cadmium content	PASS	/
7.	For material: Glass and ceramics – Leachable Cobalt content	PASS	/
8.	For material: Silicone – Overall migration test for compliance with Resolution AP (2004)5.	PASS	/
9.	For material: Silicone – Extractable components	PASS	/
10.	For material: Silicone / Rubber / Plastic – Remaining Peroxide	PASS	/
11.	For material: Silicone – Total Platinum content	PASS	/
12.	For material: Silicone / Rubber – Volatile Organic Matters	PASS	/
13.	For material: Metal and Metal alloy – Specific Migration of 21 Heavy Metals according to European Directorate for the Quality of Medicines & Healthcare Technical guide	PASS	/

No.	Test Requested	Conclusion	Remarks
	PA/PH/EMB (13) 9 and Resolution CM/Res(2013)9		
14.	Sensory test – With reference to DIN 10955	**PASS**	**/**

1. TESTED SUBJECT DESCRIPTION

Sample Number	Tested Material Description	Photo
001	Black plastic cover (PP H8020)	
002	Transparent plastic retainer (AS 330EF)	
003	Transparent glass jar	
004	Transparent silicone seal ring	
005	Silvery metal oil bearing bracket (SUS304)	

Sample Number	Tested Material Description	Photo
006	Silvery metal blade shaft (SUS 301+ SUS 304)	
007	End Product (BL9703-GS)	
008	End Product (BL9703A-GS)	

2. TEST RESULT

2.1. OVERALL MIGRATION TEST FOR PLASTIC

Test method: As specified in Regulation (EU) No. 10/2011; with reference to EN 1186: part 3:2002.

Simulant Used	Test Condition	Result [mg/dm²]		Maximum Permissible Limit [mg/dm²]
		Sample 001	Sample 002	
3% Acetic Acid	70 °C for 2 hours	< 3.0	< 3.0	10
50% Ethanol	70 °C for 2 hours	< 3.0	< 3.0	10

Note:

- "°C" denotes degree Celsius
- "mg/dm²" denotes milligram per square decimeter
- "<" denotes less than
- The specification was quoted from regulation (EU) No. 10/2011.

2.2. SPECIFIC MIGRATION OF HEAVY METALS (Ba, Co, Cu, Fe, Li, Mn, Zn, Al, Ni, W) TEST

Test method: As specified in Regulation (EU) No. 10/2011, the sample(s) were migrated with food simulant, followed by Inductively Coupled Plasma Optical Emission Spectrometry (ICP-OES) analysis.

Testing condition and simulant: 3% acetic acid at 70 °C for 2 hour(s).

Test Item	Result [mg/kg]		Maximum Permissible Limit [mg/kg]
	Sample 001	Sample 002	
Barium (Ba)	<0.10	<0.10	1
Cobalt (Co)	<0.05	<0.05	0.05
Copper (Cu)	<0.50	<0.50	5
Iron (Fe)	<1.00	<1.00	48
Lithium (Li)	<0.10	<0.10	0.6
Manganese (Mn)	<0.05	<0.05	0.6
Zinc (Zn)	<1.00	<1.00	5
Aluminium (Al)	<0.05	<0.05	1
Nickel (Ni)	<0.02	<0.02	0.02
Tungsten (W)	<0.01	<0.01	0.05

Note:

- "°C" denotes degree Celsius
- "mg/kg" denotes milligram per kilogram foodstuff
- "<" denotes less than
- The specification was quoted from regulation (EU) No. 10/2011 and it's amendments regulation (EU) No. 2016-1416, (EU) No. 2017-752, (EU) No. 2018-79.

2.3. TOTAL CHROMIUM, VANADIUM, ZIRCONIUM AND HAFNIUM CONTENT TEST

Test method: Microwave digestion, followed by Inductively Coupled Plasma Optical Emission Spectrometry (ICP-OES) analysis.

Test Item	Result [mg/kg]	Maximum Permissible Limit [mg/kg]
	Sample 001	
Chromium (Cr)	< 10	10
Vanadium (V)	< 15	20
Zirconium (Zr)	< 15	100
Hafnium (Hf)	< 15	100

Note:

- "mg/kg" denotes miligram per kilogram
- "<" denotes less than
- The specification was quoted from Recommendation of the BfR "Kunststoffe im Lebensmittelverkehr" Part VII "Polypropylene".

2.4. VOLATILE ORGANIC COMPONENTS TEST

Test Method: With reference to 48th Communication on the testing of plastics, Bundesgesundheitsblatt 25 (1982) 334.

Test Item	Test Condition	Result [mg/dm^2]	Maximum Permissible Limit [mg/dm^2]
		Sample 002	
Volatile Organic Components	90 °C for 24 hours	4.7	15

Note:

- "°C" denotes degree Celsius
- "mg/dm^2" denotes milligram per square decimeter
- "<" denotes less than
- The specification was quoted from Recommendation of the BfR "Kunststoffe im Lebensmittelverkehr Part VI "Styrene Copolymers and Graft Polymers, and Mixtures of Polystyrene with other Polymers"

2.5. SPECIFIC MIGRATION OF ACRYLONITRILE TEST

Test method: As specified in Regulation (EU) No. 10/2011, the sample(s) were migrated with food simulant, followed by Gas Chromatography/Mass Spectrometry (GC-MS) analysis.

Testing condition and simulant: 3% acetic acid at 40 °C for 2 hour(s).

Test Item	Result [mg/kg]	Maximum Permissible Limit [mg/kg]
	Sample 002	
Migration of Acrylonitrile	< 0.01	Not Detected (< 0.01mg/kg)

Note:

- "°C" denotes degree Celsius
- "mg/kg" denotes milligram per kilogram foodstuff
- "<" denotes less than
- The specification was quoted from Regulation (EU) No. 10/2011

2.6. LEACHABLE LEAD AND CADMIUM CONTENT TEST

Test method: With reference to BS EN 1388: Part 1: 1996 and BS EN 1388: Part 2: 1996.

Test Item	Unit	Result	Maximum Permissible Limit
		Sample 003	
Leachable Lead	mg/L	< 0.10	4.0
Leachable Cadmium	mg/L	< 0.05	0.3

Note:

- "mg/L" denotes milligram per Litre
- "<" denotes less than
- The specification was quoted from directive 84/500/EEC for article as hollowware (category 2).

2.7. LEACHABLE COBALT CONTENT TEST

Test method: With reference to BS EN 1388: Part 1: 1996 and BS EN 1388: Part 2: 1996.

Test Item	Unit	Result	Maximum Permissible Limit
		Sample 003	
Leachable Cobalt	mg/L	<0.05	0.1

Note:

- "mg/L" denotes milligram per Litre
- "<" denotes less than
- The specification was quoted from Germany Bavarian State Ministry of Justice and Consumer Protection.

2.8. OVERALL MIGRATION TEST FOR SILICONE

Test method: As specified in Resolution AP (2004)5; with reference to EN 1186:part 1, part 3:2002.

Simulant Used	Test Condition	Result [mg/kg]	Maximum Permissible Limit [mg/kg]]
		Sample 004	
3% Acetic Acid	70 °C for 2 hours	< 10	60
50% Ethanol	70 °C for 2 hours	< 10	60

Note:

- "°C" denotes degree Celsius
- "mg/kg" denotes milligram per kilogram foodstuff
- "<" denotes less than
- The specification was quoted from Resolution AP (2004)5.

2.9. EXTRACTABLE COMPONENTS TEST

Test method: With reference to Kunststoffe im Lebensmittelverkehr, Book 2, Teil B II, XV.

Simulant Used	Test Condition	Result [%]	Maximum Permissible Limit [%]
		Sample 004	
3% Acetic Acid	Reflux for 5 hours	< 0.10	0.5
10% Ethanol	Reflux for 5 hours	< 0.10	0.5

Note :

- "%" denotes percentage by weight
- "<" denotes less than
- The specification was quoted from Recommendation of the BfR "Kunststoffe im Lebensmittelverkehr" Part XV "Silicone"

2.10. REMAINING PEROXIDE TEST

Test method : With reference to 58th Communication on the testing of plastics, Bundesgesundheitsbl. 40 (1997) 412.

Test Item	Result	Maximum Permissible Limit
	Sample 004	
Remaining Peroxide	Absent	Absent

Note:

- The specification was quoted from Recommendation of the BfR "Kunststoffe im Lebensmittelverkehr Part XV and Part VI.

2.11. TOTAL PLATINUM CONTENT TEST

Test method: Microwave digestion, followed by Inductively Coupled Plasma Optical Emission Spectrometry (ICP-OES) analysis.

Test Item	Result [mg/kg]	Maximum Permissible Limit [mg/kg]
	Sample 004	
Total Platinum (Pt)	< 15.0	50 (other than coating paper, plastic film)

Note:

- "mg/kg" denotes milligram per kilogram
- "<" denotes less than
- The specification was quoted from Recommendation of the BfR "Kunststoffe im Lebensmittelverkehr Part XV "Silicone"

2.12. VOLATILE ORGANIC MATTER TEST

Test Method: With reference to 61st Communication on testing of plastics in Bundesgesundheitsbl 46 (2003) 362.

Test Item	Test Condition	Result [%]	Maximum Permissible Limit [%]
		Sample 004	
Volatile Organic Matter	200 °C for 4hours	0.11	0.5

Note:

- "°C" denotes degree Celsius
- "%" denotes percentage by weight
- "<" denotes less than
- The specification was quoted from Recommendation of the BfR "Kunststoffe im Lebensmittelverkehr Part XV "Silicones"

2.13. SPECIFIC MIGRATION OF HEAVY METAL CONTENT TEST

Test method: The sample(s) were extracted with food simulant , followed by analysis using Inductively Coupled Plasma Optical Emission Spectrometry (ICP-OES) and Inductively Coupled Plasma Mass Spectrometry(ICP-MS).

Testing condition and simulant: 0.5% citric acid at 40 °C for 2 hour(s).

No.	Test Item		Result [mg/kg] (3rd migration)		Limit for 3rd migration [mg/kg]
			Sample 005	Sample 005	
1.	Barium	(Ba)	<0.1	<0.1	1.2
2.	Copper	(Cu)	<0.1	<0.1	4
3.	Iron	(Fe)	<0.1	<0.1	40
4.	Tin	(Sn)	<0.5	<0.5	100
5.	Chromium	(Cr)	<0.05	<0.05	0.250
6.	Manganese	(Mn)	<0.1	<0.1	1.8
7.	Zinc	(Zn)	< 0.1	< 0.1	5
8.	Aluminum	(Al)	<0.1	<0.1	5
9.	Lithium	(Li)	<0.005	<0.005	0.048
10.	Beryllium	(Be)	<0.002	<0.002	0.01
11.	Vanadium	(V)	< 0.002	< 0.002	0.01
12.	Nickel	(Ni)	<0.05	<0.05	0.14
13.	Cobalt	(Co)	<0.002	<0.002	0.02
14.	Arsenic	(As)	<0.0004	<0.0004	0.002
15.	Molybdenum	(Mo)	<0.002	<0.002	0.12
16.	Silver	(Ag)	<0.002	<0.002	0.08
17.	Cadmium	(Cd)	<0.0004	<0.0004	0.005
18.	Antimony	(Sb)	<0.005	<0.005	0.04
19.	Mercury	(Hg)	< 0.0005	< 0.0005	0.003
20.	Thallium	(Tl)	< 0.0001	< 0.0001	0.0001
21.	Lead	(Pb)	< 0.01	< 0.01	0.010

Note:

- "°C" denotes degree Celsius
- "mg/kg" denotes milligram per kilogram foodstuff
- "<" denotes less than

(Continued)

Testing condition and simulant: 0.5% citric acid at 100 °C for 2 hour(s).

No.	Test Item		Result [mg/kg] (1st + 2nd Migration)		Limit for 1st+2nd migration [mg/kg]
			Sample 005	Sample 006	
1.	Barium	(Ba)	<0.2	<0.2	8.4
2.	Copper	(Cu)	<0.2	<0.2	28
3.	Iron	(Fe)	0.5	<0.2	280
4.	Tin	(Sn)	<1.0	<1.0	700
5.	Chromium	(Cr)	<0.1	<0.1	1.75
6.	Manganese	(Mn)	<0.2	<0.2	12.6
7.	Zinc	(Zn)	< 0.2	< 0.2	35
8.	Aluminum	(Al)	<0.2	<0.2	35
9.	Lithium	(Li)	<0.01	<0.01	0.336
10.	Beryllium	(Be)	< 0.004	< 0.004	0.07
11.	Vanadium	(V)	< 0.004	< 0.004	0.07
12.	Nickel	(Ni)	<0.1	<0.1	0.98
13.	Cobalt	(Co)	<0.004	<0.004	0.14
14.	Arsenic	(As)	<0.0008	<0.0008	0.014
15.	Molybdenum	(Mo)	<0.004	<0.004	0.84
16.	Silver	(Ag)	<0.004	<0.004	0.56
17.	Cadmium	(Cd)	<0.0008	<0.0008	0.035
18.	Antimony	(Sb)	<0.01	<0.01	0.28
19.	Mercury	(Hg)	< 0.001	0.001	0.021
20.	Thallium	(Tl)	< 0.0002	< 0.0002	0.0007
21.	Lead	(Pb)	< 0.02	< 0.02	0.07

Note:

- "°C" denotes degree Celsius
- "mg/kg" denotes milligram per kilogram foodstuff
- "<" denotes less than

2.14. SENSORY TEST

Test method: With reference to DIN 10955: 2004. The submitted sample was treated with food stimulant. After this treatment, treated water was examined by panels with regard to any divergence in smell and taste.

Testing condition and simulant: Distilled water at 70 °C for 2 hour(s).

Test Item	Grading Result		Recommended Level
	Sample 007	Sample 008	
Transfer of Smell	1	1	< 2.5
Transfer of Taste	1	1	< 2.5

Note:

- "<" denotes less than
- Explanation for grading are listed as below:
  Grading 0: No perceptible taste/smell deviation
  Grading 1: Just perceptible taste/smell deviation
  Grading 2: Weak taste/smell deviation
  Grading 3: Clear taste/smell deviation
  Grading 4: Strong taste/smell deviation

3. REMARK

The chemical testing was performed in TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch Chemical lab and the test results were reviewed at TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch.

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APPENDIX:

Material List

Part Name	Material	Color
Jar cover	PP H8020	Black
Blade retainer		
Measure cup	AS 330EF	Transparent
Glass jar	Glass	Transparent
Blade base ring	Silicone	Transparent
Jar cover ring		
Blade shaft seal ring		
Oil bearing bracket	SUS304	Silvery
Blade asm	SUS301+SUS304	Silvery