

SUBJECT Chemical Test

TEST LOCATION TÜV SÜD China
TÜV SÜD Products Testing (Shanghai) Co., Ltd.
B-3/4, No.1999 Du Hui Road, Minhang District
Shanghai 201108, P.R. China

CLIENT NAME Bibo Brands

CLIENT ADDRESS Torenplein 7.16.1 3500 Hasselt, Belgium

TEST PERIOD 03-Apr-2025~22-Apr-2025

RESULT SUMMARY Please see the next page

Prepared By



(Wang Shan)
Report Drafter

Authorized By



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Authorized Signatory

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(2) The results in this report are relevant only to the sample(s) tested.

(3) The test report may not be reproduced either in part or in full.

(4) Disclaimer Measurement Uncertainty:

Unless otherwise agreed upon, Pass or Fail verdicts are given based on the measured values without any considerations of measurement uncertainties.

Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements.

By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

(5) The testing report without CMA stamp is not legally binding and could only be used as internal reference material for the applicant. It shall not be provided as a notarial certification.

RESULT SUMMARY

1. The tested items **complied with** GB 4806.7-2023 National Food Safety Standard Plastic Materials and Articles Intended to Come into Contact with Food.
 - Sensory requirements **001, 008, 010-012 PASS**
 - Overall migration **001, 008, 010-012 PASS**
 - Potassium Permanganate Consumption **001, 008, 010-012 PASS**
 - Heavy metal (as Pb) **001, 008, 010-012 PASS**
 - Decoloring testing **001, 008, 010-012 PASS**
 - Specific migration of Primary Aromatic Amine **001, 008, 010-012 PASS**
 - Specific migration of Hexamethylenediamine **008 PASS**
 - Specific migration of Formaldehyde **010-012 PASS**
2. The tested items **complied with** GB 4806.11-2016 National Food Safety Standard Rubber Materials and Articles Intended to Come into Contact with Food.
 - Sensory requirements **002-004 PASS**
 - Overall migration **002-004 PASS**
 - Potassium Permanganate Consumption **002-004 PASS**
 - Heavy metal (as Pb) **002-004 PASS**
3. The tested items **complied with** GB 4806.9-2023 National Food Safety Standard Metal Materials and Articles Intended to Come into Contact with Food.
 - Sensory requirements **005-007 PASS**
 - Specific migration of metallic element **005-007 PASS**

SAMPLE SOURCE/ RECEIPT DATE / TEST DATE

Logistics Express / 03-Apr-2025/ 03-Apr-2025

THE FOLLOWING SAMPLE(S) WAS/WERE SUBMITTED

BY/ ON BEHALF OF THE CLIENTS AS

Sample Name: Kambukka Etna
Sample Type/ Specification: 12-01030 / 12-01031
Batch No./Date: IO24-0069
Manufacturer: /
Country of origin: CHINA

SAMPLE NO.	TEST PART	DESCRIPTION	PHOTOGRAPH
7216002445-1	001	Plastic	
7216002445-2	002	Green silicone	
7216002445-3	003	Grey silicone	
7216002445-4	004	Black silicone	
7216002445-5	005	Silver metal	
7216002445-6	006	Silver metal	
7216002445-7	007	Silver metal	

7216002445-8	008	Black plastic	
7216002445-10	010	Grey plastic	
7216002445-11	011	Green plastic	
7216002445-12	012	Black plastic	

TEST RESULT(S)

Note: The migration results in this report were tested and expressed based on repeated use articles.

1. Sensory requirements

- In accordance with GB 4806.7-2023 National Food Safety Standard Plastic Materials and Articles Intended to Come into Contact with Food
- In accordance with GB 4806.11-2016 National Food Safety Standard Rubber Materials and Articles Intended to Come into Contact with Food.
- In accordance with GB 4806.9-2023 National Food Safety Standard Metal Materials and Articles Intended to Come into Contact with Food.

Test Item(s)	Test Result(s)	Index	Comment
	001		
Sensory	Normal color; No abnormal odor; No impurity.	Normal color; No abnormal odor; No impurity and so on.	PASS
Soaking solution	Soaking solutions obtained from the migration test have no turbidity, no precipitate, no abnormal odor and other sensory deterioration.	Soaking solutions obtained from the migration test should have no turbidity, no precipitate, no abnormal odor and other sensory deterioration.	PASS

Test Item(s)	Test Result(s)	Index	Comment
	002		
Sensory	Normal color; No abnormal odor; No dirt.	Normal color; No abnormal odor; No dirt.	PASS
Soaking solution	Soaking solutions obtained from the migration test have no coloring, no turbidity, no precipitate, no abnormal odor and other sensory deterioration.	Soaking solutions obtained from the migration test should have no coloring, no turbidity, no precipitate, no abnormal odor and other sensory deterioration.	PASS

Test Item(s)	Test Result(s)	Index	Comment
	003		
Sensory	Normal color; No abnormal odor; No dirt.	Normal color; No abnormal odor; No dirt.	PASS
Soaking solution	Soaking solutions obtained from the migration test have no coloring, no turbidity, no precipitate, no abnormal odor and other sensory deterioration.	Soaking solutions obtained from the migration test should have no coloring, no turbidity, no precipitate, no abnormal odor and other sensory deterioration.	PASS

Test Item(s)	Test Result(s)	Index	Comment
	004		
Sensory	Normal color; No abnormal odor; No dirt.	Normal color; No abnormal odor; No dirt.	PASS
Soaking solution	Soaking solutions obtained from the migration test have no coloring, no turbidity, no precipitate, no abnormal odor and other sensory deterioration.	Soaking solutions obtained from the migration test should have no coloring, no turbidity, no precipitate, no abnormal odor and other sensory deterioration.	PASS

Test Item(s)	Test Result(s)	Index	Comment
	005		
Sensory	The surface in contact with food is clean, the coating has no cracks or peeling; welding part is smooth without pores, cracks or burrs.	The surface in contact with food should be properly cleaned, the coating should not have cracks or peeling; welding part should be smooth without pores, cracks or burrs.	PASS
Soaking solution	Soaking solution obtained from the migration test has no abnormal odor.	Soaking solution obtained from the migration test should have no abnormal odor.	PASS

Test Item(s)	Test Result(s)	Index	Comment
	006		
Sensory	The surface in contact with food is clean, the coating has no cracks or peeling; welding part is smooth without pores, cracks or burrs.	The surface in contact with food should be properly cleaned, the coating should not have cracks or peeling; welding part should be smooth without pores, cracks or burrs.	PASS
Soaking solution	Soaking solution obtained from the migration test has no abnormal odor.	Soaking solution obtained from the migration test should have no abnormal odor.	PASS

Test Item(s)	Test Result(s)	Index	Comment
	007		
Sensory	The surface in contact with food is clean, the coating has no cracks or peeling; welding part is smooth without pores, cracks or burrs.	The surface in contact with food should be properly cleaned, the coating should not have cracks or peeling; welding part should be smooth without pores, cracks or burrs.	PASS
Soaking solution	Soaking solution obtained from the migration test has no abnormal odor.	Soaking solution obtained from the migration test should have no abnormal odor.	PASS

Test Item(s)	Test Result(s)	Index	Comment
	008		
Sensory	Normal color; No abnormal odor; No impurity.	Normal color; No abnormal odor; No impurity and so on.	PASS
Soaking solution	Soaking solutions obtained from the migration test have no turbidity, no precipitate, no abnormal odor and other sensory deterioration.	Soaking solutions obtained from the migration test should have no turbidity, no precipitate, no abnormal odor and other sensory deterioration.	PASS

Test Item(s)	Test Result(s)	Index	Comment
	010		
Sensory	Normal color; No abnormal odor; No impurity.	Normal color; No abnormal odor; No impurity and so on.	PASS
Soaking solution	Soaking solutions obtained from the migration test have no turbidity, no precipitate, no abnormal odor and other sensory deterioration.	Soaking solutions obtained from the migration test should have no turbidity, no precipitate, no abnormal odor and other sensory deterioration.	PASS

Test Item(s)	Test Result(s)	Index	Comment
	011		
Sensory	Normal color; No abnormal odor; No impurity.	Normal color; No abnormal odor; No impurity and so on.	PASS
Soaking solution	Soaking solutions obtained from the migration test have no turbidity, no precipitate, no abnormal odor and other sensory deterioration.	Soaking solutions obtained from the migration test should have no turbidity, no precipitate, no abnormal odor and other sensory deterioration.	PASS

Test Item(s)	Test Result(s)	Index	Comment
	012		
Sensory	Normal color; No abnormal odor; No impurity.	Normal color; No abnormal odor; No impurity and so on.	PASS
Soaking solution	Soaking solutions obtained from the migration test have no turbidity, no precipitate, no abnormal odor and other sensory deterioration.	Soaking solutions obtained from the migration test should have no turbidity, no precipitate, no abnormal odor and other sensory deterioration.	PASS

2. Overall migration

- Test method with reference to GB 31604.1-2023 National Food Safety Standard General principles on the determination of migration tests for food contact materials and articles; GB 5009.156-2016 National Food Safety Standard General principles on the pretreatment of migration tests for food contact materials and articles 10.3 Total immersion method; GB 31604.8-2021 National Food Safety Standard Food contact materials and articles Determination of Overall migration
- Sample 001 Migration ratio(S/V): 1.17dm² /500mL
- Sample 002~003 Migration ratio(S/V): 0.037dm² /500mL
- Sample 004 Migration ratio(S/V): 0.0205dm² /500mL
- Sample 008 Migration ratio(S/V): 0.185dm² /500mL
- Sample 010~011 Migration ratio(S/V): 0.174dm² /500mL
- Sample 012 Migration ratio(S/V): 0.660dm² /500mL

Simulant(s) Used	Test Condition	Result(s) [mg/dm ²]	Maximum Permissible Limit [mg/dm ²]	Comment
		001		
4% Acetic acid	100°C for 1 hour	<3.0	10	PASS
50% Ethanol	100°C for 1 hour	<3.0	10	PASS

Simulant(s) Used	Test Condition	Result(s) [mg/dm ²]	Maximum Permissible Limit [mg/dm ²]	Comment
		002		
4% Acetic acid	100°C for 1 hour	<3.0	10	PASS
50% Ethanol	100°C for 1 hour	<3.0	10	PASS

Simulant(s) Used	Test Condition	Result(s) [mg/dm ²]	Maximum Permissible Limit [mg/dm ²]	Comment
		003		
4% Acetic acid	100°C for 1 hour	<3.0	10	PASS
50% Ethanol	100°C for 1 hour	<3.0	10	PASS

Simulant(s) Used	Test Condition	Result(s) [mg/dm ²]	Maximum Permissible Limit [mg/dm ²]	Comment
		004		
4% Acetic acid	100°C for 1 hour	<3.0	10	PASS
50% Ethanol	100°C for 1 hour	<3.0	10	PASS

Simulant(s) Used	Test Condition	Result(s) [mg/dm ²]	Maximum Permissible Limit [mg/dm ²]	Comment
		008		
4% Acetic acid	100°C for 1 hour	<3.0	10	PASS
50% Ethanol	100°C for 1 hour	<3.0	10	PASS

Simulant(s) Used	Test Condition	Result(s) [mg/dm ²]	Maximum Permissible Limit [mg/dm ²]	Comment
		010		
4% Acetic acid	100°C for 1 hour	<3.0	10	PASS
50% Ethanol	100°C for 1 hour	<3.0	10	PASS

Simulant(s) Used	Test Condition	Result(s) [mg/dm ²]	Maximum Permissible Limit [mg/dm ²]	Comment
		011		
4% Acetic acid	100°C for 1 hour	<3.0	10	PASS
50% Ethanol	100°C for 1 hour	<3.0	10	PASS

Simulant(s) Used	Test Condition	Result(s) [mg/dm ²]	Maximum Permissible Limit [mg/dm ²]	Comment
		012		
4% Acetic acid	100°C for 1 hour	<3.0	10	PASS
50% Ethanol	100°C for 1 hour	<3.0	10	PASS

3. Potassium Permanganate Consumption

- Test method with reference to GB 5009.156-2016 National Food Safety Standard General principles on the pretreatment of migration tests for food contact materials and articles 10.3 Total immersion method; GB 31604.2-2016 National Food Safety Standard Food contact materials and articles Determination of Consumption of potassium permanganate
- Sample 001 Migration ratio(S/V): 1.17dm² /500mL
- Sample 002~003 Migration ratio(S/V): 0.037dm² /500mL
- Sample 004 Migration ratio(S/V): 0.0205dm² /500mL
- Sample 008 Migration ratio(S/V): 0.185dm² /500mL
- Sample 010~011 Migration ratio(S/V): 0.174dm² /500mL
- Sample 012 Migration ratio(S/V): 0.660dm² /500mL

Simulant(s) Used	Test Condition	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]	Comment
		001		
Distilled water	60°C for 2 hours	1.8	10	PASS

Simulant(s) Used	Test Condition	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]	Comment
		002		
Water	60°C for 0.5 hour	1.4	10	PASS

Simulant(s) Used	Test Condition	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]	Comment
		003		
Water	60°C for 0.5 hour	1.8	10	PASS

Simulant(s) Used	Test Condition	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]	Comment
		004		
Water	60°C for 0.5 hour	2.6	10	PASS

Simulant(s) Used	Test Condition	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]	Comment
		008		
Distilled water	60°C for 2 hours	1.4	10	PASS

Simulant(s) Used	Test Condition	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]	Comment
		010		
Distilled water	60°C for 2 hours	1.4	10	PASS

Simulant(s) Used	Test Condition	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]	Comment
		011		
Distilled water	60°C for 2 hours	1.3	10	PASS

Simulant(s) Used	Test Condition	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]	Comment
		012		
Distilled water	60°C for 2 hours	2.4	10	PASS

4. Heavy metal (as Pb)

- Test method with reference to GB 5009.156-2016 National Food Safety Standard General principles on the pretreatment of migration tests for food contact materials and articles 10.3 Total immersion method; GB 31604.9-2016 National Food Safety Standard Food contact materials and articles Determination of Heavy metal in food simulants The first method
- Sample 001 Migration ratio(S/V): 1.17dm² /500mL
- Sample 002~003 Migration ratio(S/V): 0.037dm² /500mL
- Sample 004 Migration ratio(S/V): 0.0205dm² /500mL
- Sample 008 Migration ratio(S/V): 0.185dm² /500mL
- Sample 010~011 Migration ratio(S/V): 0.174dm² /500mL
- Sample 012 Migration ratio(S/V): 0.660dm² /500mL

Simulant(s) Used	Test Condition	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]	Comment
		001		
4% Acetic acid	60°C for 2 hours	<1.0	1	PASS

Simulant(s) Used	Test Condition	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]	Comment
		002		
4% Acetic acid	60°C for 0.5 hour	<1.0	1	PASS

Simulant(s) Used	Test Condition	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]	Comment
		003		
4% Acetic acid	60°C for 0.5 hour	<1.0	1	PASS

Simulant(s) Used	Test Condition	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]	Comment
		004		
4% Acetic acid	60°C for 0.5 hour	<1.0	1	PASS

Simulant(s) Used	Test Condition	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]	Comment
		008		
4% Acetic acid	60°C for 2 hours	<1.0	1	PASS

Simulant(s) Used	Test Condition	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]	Comment
		010		
4% Acetic acid	60°C for 2 hours	<1.0	1	PASS

Simulant(s) Used	Test Condition	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]	Comment
		011		
4% Acetic acid	60°C for 2 hours	<1.0	1	PASS

Simulant(s) Used	Test Condition	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]	Comment
		012		
4% Acetic acid	60°C for 2 hours	<1.0	1	PASS

5. Decoloring test

- Test method with reference to GB 31604.7-2023 Food safety national standard Food contact materials and articles Decoloring testing

Test Item(s)	Result(s)	Maximum Permissible Limit	Comment
	001		
Soaking Coloring	Negative	Negative	PASS
Wipe Coloring	Negative	Negative	PASS

Test Item(s)	Result(s)	Maximum Permissible Limit	Comment
	008		
Soaking Coloring	Negative	Negative	PASS
Wipe Coloring	Negative	Negative	PASS

Test Item(s)	Result(s)	Maximum Permissible Limit	Comment
	010		
Soaking Coloring	Negative	Negative	PASS
Wipe Coloring	Negative	Negative	PASS

Test Item(s)	Result(s)	Maximum Permissible Limit	Comment
	011		
Soaking Coloring	Negative	Negative	PASS
Wipe Coloring	Negative	Negative	PASS

Test Item(s)	Result(s)	Maximum Permissible Limit	Comment
	012		
Soaking Coloring	Negative	Negative	PASS
Wipe Coloring	Negative	Negative	PASS

6. Specific migration of Primary Aromatic Amine

- Test method with reference to GB 31604.1-2023 National Food Safety Standard General principles on the determination of migration tests for food contact materials and articles; GB 5009.156-2016 National Food Safety Standard General principles on the pretreatment of migration tests for food contact materials and articles 10.3 Total immersion method; GB 31604.52-2021 National Food Safety Standard Food contact materials and articles Determination of specific migration of Primary Aromatic Amine
- Test condition: 4% Acetic acid; fill with boiling + 40°C 24 hours
- Sample 001 Migration ratio(S/V): 1.17dm² /500mL
- Sample 008 Migration ratio(S/V): 0.185dm² /500mL
- Sample 010~011 Migration ratio(S/V): 0.174dm² /500mL
- Sample 012 Migration ratio(S/V): 0.660dm² /500mL

Test Item(s)	CAS No.	Test Result(s) [mg/kg]	Detection Limit [mg/kg]	Maximum Permissible Limit [mg/kg]	Comment
		001			
p-Phenylenediamine	106-50-3	ND	0.001	--	--
1,3-Phenylenediamine	108-45-2	ND	0.001	--	--
2,4-Diaminotoluene	95-80-7	ND	0.001	--	--
4,4'-oxydianiline	101-80-4	ND	0.001	--	--
benzidine	92-87-5	ND	0.001	--	--
4,4'-diaminodiphenylmethane	101-77-9	ND	0.001	--	--
Aniline	62-53-3	ND	0.001	--	--
o-anisidine	90-04-0	ND	0.001	--	--
o-toluidine	95-53-4	ND	0.001	--	--
4,4'-methylenedi-o-toluidine	838-88-0	ND	0.001	--	--
3,3'-dimethoxybenzidine	119-90-4	ND	0.001	--	--
3,3'-dimethylbenzidine	119-93-7	ND	0.001	--	--
2,6-dimethylaniline	87-62-7	ND	0.001	--	--
2,4'-methylenedianiline	1208-52-2	ND	0.001	--	--
4-methoxy-m-phenylenediamine	615-05-4	ND	0.001	--	--

p-cresidine	120-71-8	ND	0.001	--	--
2,4,5-trimethylaniline	137-17-7	ND	0.001	--	--
4,4'-thiodianiline	139-65-1	ND	0.001	--	--
4-chloroaniline	106-47-8	ND	0.001	--	--
2,4-dimethyl aniline	95-68-1	ND	0.001	--	--
2-naphthylamine	91-59-8	ND	0.001	--	--
2,2'-methylenedianiline	6582-52-1	ND	0.001	--	--
4-aminobiphenyl	92-67-1	ND	0.001	--	--
4-chloro-o-toluidine	95-69-2	ND	0.001	--	--
5-nitro-o-toluidine	99-55-8	ND	0.001	--	--
3,3'-dichlorobenzidine	91-94-1	ND	0.001	--	--
4-aminoazobenzene	60-09-3	ND	0.001	--	--
4,4'-methylene-bis- (2-chloro-aniline)	101-14-4	ND	0.001	--	--
o-aminoazotoluene	97-56-3	ND	0.001	--	--
Total migration of aromatic primary amines	--	ND	0.01	Not Detected	PASS

Test Item(s)	CAS No.	Test Result(s) [mg/kg]	Detection Limit [mg/kg]	Maximum Permissible Limit [mg/kg]	Comment
		008			
p-Phenylenediamine	106-50-3	ND	0.001	--	--
1,3-Phenylenediamine	108-45-2	ND	0.001	--	--
2,4-Diaminotoluene	95-80-7	ND	0.001	--	--
4,4'-oxydianiline	101-80-4	ND	0.001	--	--
benzidine	92-87-5	ND	0.001	--	--
4,4'-diaminodiphenylmethane	101-77-9	ND	0.001	--	--
Aniline	62-53-3	ND	0.001	--	--
o-anisidine	90-04-0	ND	0.001	--	--
o-toluidine	95-53-4	ND	0.001	--	--
4,4'-methylenedi-o-toluidine	838-88-0	ND	0.001	--	--
3,3'-dimethoxybenzidine	119-90-4	ND	0.001	--	--
3,3'-dimethylbenzidine	119-93-7	ND	0.001	--	--
2,6-dimethylaniline	87-62-7	ND	0.001	--	--
2,4'-methylenedianiline	1208-52-2	ND	0.001	--	--
4-methoxy-m-phenylenediamine	615-05-4	ND	0.001	--	--

p-cresidine	120-71-8	ND	0.001	--	--
2,4,5-trimethylaniline	137-17-7	ND	0.001	--	--
4,4'-thiodianiline	139-65-1	ND	0.001	--	--
4-chloroaniline	106-47-8	ND	0.001	--	--
2,4-dimethyl aniline	95-68-1	ND	0.001	--	--
2-naphthylamine	91-59-8	ND	0.001	--	--
2,2'-methylenedianiline	6582-52-1	ND	0.001	--	--
4-aminobiphenyl	92-67-1	ND	0.001	--	--
4-chloro-o-toluidine	95-69-2	ND	0.001	--	--
5-nitro-o-toluidine	99-55-8	ND	0.001	--	--
3,3'-dichlorobenzidine	91-94-1	ND	0.001	--	--
4-aminoazobenzene	60-09-3	ND	0.001	--	--
4,4'-methylene-bis- (2-chloro-aniline)	101-14-4	ND	0.001	--	--
o-aminoazotoluene	97-56-3	ND	0.001	--	--
Total migration of aromatic primary amines	--	ND	0.01	Not Detected	PASS

Test Item(s)	CAS No.	Test Result(s) [mg/kg]	Detection Limit [mg/kg]	Maximum Permissible Limit [mg/kg]	Comment
		010			
p-Phenylenediamine	106-50-3	ND	0.001	--	--
1,3-Phenylenediamine	108-45-2	ND	0.001	--	--
2,4-Diaminotoluene	95-80-7	ND	0.001	--	--
4,4'-oxydianiline	101-80-4	ND	0.001	--	--
benzidine	92-87-5	ND	0.001	--	--
4,4'-diaminodiphenylmethane	101-77-9	ND	0.001	--	--
Aniline	62-53-3	ND	0.001	--	--
o-anisidine	90-04-0	ND	0.001	--	--
o-toluidine	95-53-4	ND	0.001	--	--
4,4'-methylenedi-o-toluidine	838-88-0	ND	0.001	--	--
3,3'-dimethoxybenzidine	119-90-4	ND	0.001	--	--
3,3'-dimethylbenzidine	119-93-7	ND	0.001	--	--
2,6-dimethylaniline	87-62-7	ND	0.001	--	--
2,4'-methylenedianiline	1208-52-2	ND	0.001	--	--
4-methoxy-m-phenylenediamine	615-05-4	ND	0.001	--	--

p-cresidine	120-71-8	ND	0.001	--	--
2,4,5-trimethylaniline	137-17-7	ND	0.001	--	--
4,4'-thiodianiline	139-65-1	ND	0.001	--	--
4-chloroaniline	106-47-8	ND	0.001	--	--
2,4-dimethyl aniline	95-68-1	ND	0.001	--	--
2-naphthylamine	91-59-8	ND	0.001	--	--
2,2'-methylenedianiline	6582-52-1	ND	0.001	--	--
4-aminobiphenyl	92-67-1	ND	0.001	--	--
4-chloro-o-toluidine	95-69-2	ND	0.001	--	--
5-nitro-o-toluidine	99-55-8	ND	0.001	--	--
3,3'-dichlorobenzidine	91-94-1	ND	0.001	--	--
4-aminoazobenzene	60-09-3	ND	0.001	--	--
4,4'-methylene-bis- (2-chloro-aniline)	101-14-4	ND	0.001	--	--
o-aminoazotoluene	97-56-3	ND	0.001	--	--
Total migration of aromatic primary amines	--	ND	0.01	Not Detected	PASS

Test Item(s)	CAS No.	Test Result(s) [mg/kg]	Detection Limit [mg/kg]	Maximum Permissible Limit [mg/kg]	Comment
		011			
p-Phenylenediamine	106-50-3	ND	0.001	--	--
1,3-Phenylenediamine	108-45-2	ND	0.001	--	--
2,4-Diaminotoluene	95-80-7	ND	0.001	--	--
4,4'-oxydianiline	101-80-4	ND	0.001	--	--
benzidine	92-87-5	ND	0.001	--	--
4,4'-diaminodiphenylmethane	101-77-9	ND	0.001	--	--
Aniline	62-53-3	ND	0.001	--	--
o-anisidine	90-04-0	ND	0.001	--	--
o-toluidine	95-53-4	ND	0.001	--	--
4,4'-methylenedi-o-toluidine	838-88-0	ND	0.001	--	--
3,3'-dimethoxybenzidine	119-90-4	ND	0.001	--	--
3,3'-dimethylbenzidine	119-93-7	ND	0.001	--	--
2,6-dimethylaniline	87-62-7	ND	0.001	--	--
2,4'-methylenedianiline	1208-52-2	ND	0.001	--	--
4-methoxy-m-phenylenediamine	615-05-4	ND	0.001	--	--

p-cresidine	120-71-8	ND	0.001	--	--
2,4,5-trimethylaniline	137-17-7	ND	0.001	--	--
4,4'-thiodianiline	139-65-1	ND	0.001	--	--
4-chloroaniline	106-47-8	ND	0.001	--	--
2,4-dimethyl aniline	95-68-1	ND	0.001	--	--
2-naphthylamine	91-59-8	ND	0.001	--	--
2,2'-methylenedianiline	6582-52-1	ND	0.001	--	--
4-aminobiphenyl	92-67-1	ND	0.001	--	--
4-chloro-o-toluidine	95-69-2	ND	0.001	--	--
5-nitro-o-toluidine	99-55-8	ND	0.001	--	--
3,3'-dichlorobenzidine	91-94-1	ND	0.001	--	--
4-aminoazobenzene	60-09-3	ND	0.001	--	--
4,4'-methylene-bis- (2-chloro-aniline)	101-14-4	ND	0.001	--	--
o-aminoazotoluene	97-56-3	ND	0.001	--	--
Total migration of aromatic primary amines	--	ND	0.01	Not Detected	PASS

Test Item(s)	CAS No.	Test Result(s) [mg/kg]	Detection Limit [mg/kg]	Maximum Permissible Limit [mg/kg]	Comment
		012			
p-Phenylenediamine	106-50-3	ND	0.001	--	--
1,3-Phenylenediamine	108-45-2	ND	0.001	--	--
2,4-Diaminotoluene	95-80-7	ND	0.001	--	--
4,4'-oxydianiline	101-80-4	ND	0.001	--	--
benzidine	92-87-5	ND	0.001	--	--
4,4'-diaminodiphenylmethane	101-77-9	ND	0.001	--	--
Aniline	62-53-3	ND	0.001	--	--
o-anisidine	90-04-0	ND	0.001	--	--
o-toluidine	95-53-4	ND	0.001	--	--
4,4'-methylenedi-o-toluidine	838-88-0	ND	0.001	--	--
3,3'-dimethoxybenzidine	119-90-4	ND	0.001	--	--
3,3'-dimethylbenzidine	119-93-7	ND	0.001	--	--
2,6-dimethylaniline	87-62-7	ND	0.001	--	--
2,4'-methylenedianiline	1208-52-2	ND	0.001	--	--
4-methoxy-m-phenylenediamine	615-05-4	ND	0.001	--	--

p-cresidine	120-71-8	ND	0.001	--	--
2,4,5-trimethylaniline	137-17-7	ND	0.001	--	--
4,4'-thiodianiline	139-65-1	ND	0.001	--	--
4-chloroaniline	106-47-8	ND	0.001	--	--
2,4-dimethyl aniline	95-68-1	ND	0.001	--	--
2-naphthylamine	91-59-8	ND	0.001	--	--
2,2'-methylenedianiline	6582-52-1	ND	0.001	--	--
4-aminobiphenyl	92-67-1	ND	0.001	--	--
4-chloro-o-toluidine	95-69-2	ND	0.001	--	--
5-nitro-o-toluidine	99-55-8	ND	0.001	--	--
3,3'-dichlorobenzidine	91-94-1	ND	0.001	--	--
4-aminoazobenzene	60-09-3	ND	0.001	--	--
4,4'-methylene-bis- (2-chloro-aniline)	101-14-4	ND	0.001	--	--
o-aminoazotoluene	97-56-3	ND	0.001	--	--
Total migration of aromatic primary amines	--	ND	0.01	Not Detected	PASS

Note: ND denotes Not Detected and less than Detection Limit

7. Specific migration of metallic element

- Test method with reference to GB 5009.156-2016 National Food Safety Standard-General principles on the pretreatment of migration tests for food contact materials and articles 10.3 Total immersion method and 10.2.1 Filling method General method; GB 31604.49-2023 National Food Safety Standard-Food contact materials and articles Determination of Multi-elements and Migration of Multi-elements
- Sample 005 Migration ratio(S/V): 0.03dm² /500ml
- Sample 006-007 Migration ratio(S/V): 3.11dm² /500ml
- The sample was immersed 5g/L citric acid, 70°C for 2 hours, and then 40°C for 24 hours. The heavy metal content of extracting solution was then analysed using by ICP-MS.

Test Item(s)	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]	Comment
	005		
As	<0.0006	0.002	PASS
Cd	<0.0003	0.002	PASS
Pb	<0.001	0.01	PASS
Cr	<0.005	0.25	PASS
Ni	<0.005	0.14	PASS
Sb	<0.005	0.04	PASS
Al	<0.02	1	PASS
Co	<0.001	0.02	PASS
Cu	<0.005	4	PASS
Mn	<0.003	2.0	PASS

Mo	<0.005	0.12	PASS
Zn	<0.02	5	PASS
Sn	<0.005	100	PASS

Test Item(s)	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]	Comment
	006		
As	<0.0006	0.002	PASS
Cd	<0.0003	0.002	PASS
Pb	<0.001	0.01	PASS
Cr	<0.005	0.25	PASS
Ni	<0.005	0.14	PASS
Sb	<0.005	0.04	PASS
Al	<0.02	1	PASS
Co	<0.001	0.02	PASS
Cu	<0.005	4	PASS
Mn	<0.003	2.0	PASS
Mo	<0.005	0.12	PASS
Zn	<0.02	5	PASS
Sn	<0.005	100	PASS

Test Item(s)	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]	Comment
	007		
As	<0.0006	0.002	PASS
Cd	<0.0003	0.002	PASS
Pb	<0.001	0.01	PASS
Cr	<0.005	0.25	PASS
Ni	<0.005	0.14	PASS
Sb	<0.005	0.04	PASS
Al	<0.02	1	PASS
Co	<0.001	0.02	PASS
Cu	<0.005	4	PASS
Mn	<0.003	2.0	PASS
Mo	<0.005	0.12	PASS

Zn	<0.02	5	PASS
Sn	<0.005	100	PASS

8. Specific migration of Hexamethylenediamine

- Test method with reference to GB 31604.1-2023 National Food Safety Standard General principles on the determination of migration tests for food contact materials and articles; GB 5009.156-2016 National Food Safety Standard General principles on the pretreatment of migration tests for food contact materials and articles 10.3 Total immersion method; GB 31604.43-2016 National Food Safety Standard Food contact materials and articles Determination of migration of ethylenediamine and hexamethylenediamine
- Sample 008 Migration ratio (S/V): 0.185dm² /500mL

Test Item(s)	Test Condition	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]	Comment
		008		
Hexamethylenediamine	4% Acetic acid; fill with boiling + 40°C 24 hours	<1.0	2.4	PASS

9. Specific Migration of Formaldehyde

- Test method: With reference to GB 31604.1-2023 National Food Safety Standard General principles on the determination of migration tests for food contact materials and articles; GB 5009.156-2016 National Food Safety Standard General principles on the pretreatment of migration tests for food contact materials and articles 10.3 Total immersion method; GB 31604.48-2016 National Food Safety Standard Food contact materials and articles Determination of Specific migration of formaldehyde
- Sample 010-011 Migration ratio(S/V): 0.174dm² /500mL
- Sample 012 Migration ratio(S/V): 0.660dm² /500mL

Test Item(s)	Test Condition	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]	Comment
		010		
Formaldehyde	4% Acetic acid; fill with boiling + 40°C 24 hours	<0.30	15	PASS

Test Item(s)	Test Condition	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]	Comment
		011		
Formaldehyde	4% Acetic acid; fill with boiling + 40°C 24 hours	0.34	15	PASS

Test Item(s)	Test Condition	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]	Comment
		012		
Formaldehyde	4% Acetic acid; fill with boiling + 40°C 24 hours	1.57	15	PASS

Whole product:



-END OF THE TEST REPORT-

