



Technical Report: (9623) 324-0513-R2

DECEMBER 05, 2023

Date Received: NOVEMBER 21, 2023

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FROGUT SP. ZOO
UL. KSAWEROW 20/2, 02-656 WARSZAWA, POLAND

Sample Description: NON-SOFTENING PAPER STRAWS WITH AQUA-DISPERSION COATING AND STRAIGHT WELDING

Vendor:	/	Sample Size:	/
Manufacturer:	/	VPN:	/
Buyer:	/	SKN/SKU No.:	/
Agent:	/	PO No.:	/
Labeled Age Grade:	/	Country of Origin:	/
Appropriate Age Grade:	/	Assortment No.:	/
Client Specified Age Grade:	/	Department No.:	/
Tested Age Grade:	/	ITEM#:	/
UPC Code:	/	Model/Style#:	/
Phase of Production:	/	Date of Production:	/
Color:	/	Country of Destination:	EU
Program:	/		
Previous No:	N/A		

TEST:

1. Sensory Test (Odour and Taste)
2. Extractable Heavy Metals Contents for Paper and Paperboard in Contact with Foodstuffs
3. Formaldehyde Content for Paper and Paperboard in Contact with Foodstuffs
4. Specific Migration of Primary aromatic amine for Plastic Materials
5. Fastness of Fluorescence for Paper and Paperboard in Contact with Foodstuffs

EXECUTIVE SUMMARY:

The sample MEETS the following requirement(s):

1. The requirement of Sensory Test (Odour and Taste) for Materials in Contact with Foodstuffs – EC No. 1935/2004 and § 30 and 31 LFGB and BfR Recommendation.
2. Extractable Heavy Metals Contents for Paper and Paperboard in Contact with Foodstuffs
3. Formaldehyde Content for Paper and Paperboard in Contact with Foodstuffs – § 30 and 31 LFGB and BfR Recommendation.
4. Specific Migration of Primary aromatic amine for Plastic Materials in Contact with Foodstuffs - Commission Regulation (EU) No. 10/2011 and Its Amendments content per Client's specification.
5. Fastness of Fluorescence for Paper and Paperboard in Contact with Foodstuffs – § 30 and 31 LFGB and BfR Recommendation.



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Note(s):

- This report includes the test result(s) which was conducted & reviewed by Analytical department.
- Remark: This report was revised on December 15, 2023 to add sample photo (remove paper packaging) per Vendor's request.
- Remark : This report was revised on January 13, 2024 to remove PFAS results per Vendor's request.

If there is any question regarding this report, please contact the following lab personnel:

BVCPS Contact information for this report:

Technical questions:

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BUREAU VERITAS CONSUMER PRODUCTS SERVICES (VN) LTD.

SURI TRAN
DEPUTY MANAGER – ANALYTICAL



SAMPLE DESCRIPTION ASSIGNED BY LABORATORY

Test Item(s)	Sample description/ Location	Material	Style(s)
I001	WHITE PAPER / STRAW	PAPER	-

TEST RESULT

Sensory Test (Odour and Taste) for Materials in Contact with Foodstuffs – EC No. 1935/2004 and § 30 and 31 LFGB and BfR Recommendation

Parameter	Result	Maximum Allowable Limit
	I001	
Odour	0	2.5 Scale
Taste transfer into foodstuff through simulant, Water	0	2.5 Scale
Conclusion	PASS	-

Note: Scale: 0 = no perceptible off-odour (or taste transfer);
 1 = off-odour (or taste transfer) just perceptible (but still difficult to define);
 2 = slight off-odour (or taste transfer);
 3 = distinct off-odour (or taste transfer);
 4 = strong off-odour (or taste transfer)

Method: DIN 10955: 2004-06

TEST RESULT

Extractable Heavy Metals Contents for Paper and Paperboard in Contact with Foodstuffs

For cold filtration

Parameter	Unit	Result	Maximum Allowable Limit
		I001	
Cadmium (Cd)	µg/l	<1	5
Lead (Pb)	µg/l	<2	10
Chromium III (Cr III)	µg/dm ²	<0.1	4
Chromium VI (Cr VI)	µg/dm ²	<0.1	Not Detected
Conclusion	-	PASS	-

For hot filtration

Parameter	Unit	Result	Maximum Allowable Limit
		I001	
Cadmium (Cd)	µg/l	<1	5
Lead (Pb)	µg/l	<2	10
Chromium III (Cr III)	µg/dm ²	<0.1	4
Chromium VI (Cr VI)	µg/dm ²	<0.1	Not Detected
Conclusion	-	PASS	-

Note: " $<$ " = less than
 µg/l = microgram per liter
 µg/dm² = microgram per square decimeter
 mg/L = milligram per liter
 mg/kg = milligram per kilogram

Method: EN 645:1994 and analysis by Inductively Coupled Argon Plasma Spectrometer (ICP) and UV-Vis Spectrophotometer.

Remark: The limit refers to BfR Recommendation XXXVI
 Remark: Test was conduct per Vendor's request.



TEST RESULT

Formaldehyde Content for Paper and Paperboard in Contact with Foodstuffs – § 30 and 31 LFGB and BfR Recommendation

Parameter	Unit	Result	Maximum Allowable Limit
		I001	
Formaldehyde	mg/dm ²	<0.5	1
Conclusion	-	PASS	-

Note: “<” = less than
mg/dm² = milligram per square decimeter

Method: EN 645:1994 and analysis by EN 1541:2001.

Remark: The limit refers to BfR Recommendation XXXVII.

TEST RESULT

Specific Migration of Primary Aromatic Amine for Plastic Materials in Contact with Foodstuffs – Commission Regulation (EU) No. 10/2011 and Its Amendments

Method: EN 13130-1: 2004, LC-MS analysis.

Test Condition: 2h at 70°C (3% Acetic acid)

Parameter	Simulant Used	Unit	Result	Maximum Allowable Limit
			I001	
Food contact surface area	-	dm ²	0.6	-
Volume of stimulant used	-	mL	100	-
Primary Aromatic Amine	3% Acetic acid	mg/kg	<0.002	0.01
Conclusion	-	-	PASS	-

Note: “<” = less than
 mg/kg = milligram per kilogram

Remark: For plastic kitchenware made by polyamide, declaration shall be provided for every consignment of polyamide plastic kitchenware originating in or consigned from the People’s Republic of China and Hong Kong Special Administrative Region, China. Please refer to Annex I for details.

- 1) The migration test is carried out according to EC Regulation No. 2019/37 and the corresponding regulatory statutes including EU regulation No. 10/2011
- 2) For article intended for single use, only single determination is carried out in the migration tests and the test result is shown in result table.

List of Primary Aromatic Amine

No.	PAA targets	Abbrev.	CAS No.	SML (mg/kg in food simulant)
1	4-aminobiphenyl / 4-biphenylamine	4-ABP	92-67-1	0.002
2	o-anisidine / 2-methoxyaniline	o-ASD	90-04-0	0.002
3	Benzidine	BNZ	92-87-5	0.002
4	4-Chloro-aniline / p-chloroaniline	4-CA	106-47-8	0.002
5	4-Chloro-o-toluidine	4-CoT	95-69-2	0.002
6	4,4'-Diaminodiphenylether / 4,4'-oxydianiline	4,4'-DPE	101-80-4	0.002
7	4,4'-Methylenedianiline / 4,4'-diamino-diphenylmethane	4,4'-MDA	101-77-9	0.002
8	4,4'-Methylenedi-o-toluidine / 3,3'-dimethyl-4,4'-diaminodiphenylmethane	4,4'-MDoT	838-88-0	0.002
9	2-Methoxy-5-methylaniline / p-cresidine	2-M-5-MA	120-71-8	0.002
10	4-Methoxy-m-phenylenediamine / 2,4-diaminoanisole	4-M-mPDA	615-05-4	0.002
11	o-Toluidine / 2-aminotoluene	o-T	95-53-4	0.002
12	2,4-Toluenediamine	2,4-TDA	95-80-7	0.002
13	3,3-Dimethylbenzidine	3,3-DMB	119-93-7	0.002
14	2,4,5-Trimethylaniline	2,4,5-TMA	137-17-7	0.002
15	Aniline	ANL	62-53-3	0.01 (sum)
16	2,4-Dimethylaniline / 2,4-xylidine	2,4-DMA	95-68-1	
17	2,6-Dimethylaniline / 2,6-xylidine	2,6-DMA	87-62-7	

18	p-Phenylenediamine / 1,4-phenylenediamine	p-PDA	106-50-3	
19	2,6-Toluenediamine	2,6-TDA	823-40-5	
20	1,5-Diaminenaphthalene	1,5-DAN	2243-62-1	
21	m-Phenylenediamine	m-PDA	108-45-2	0.002
22	2-naphthylamine	2-NA	91-59-8	0.002
23	o-aminoazotoluene/ 4-amino-2',3-dimethylazobenzene/ 4-o-tolylazo-o-toluidine	o-AAT	97-56-3	0.002
24	5-nitro-o-toluidine	5-N-o-T	99-55-8	0.002
25	3,3'-dichlorobenzidine	3,3-DCB	91-94-1	0.002
26	3,3'-dimethoxybenzidine / o-dianisidine	3,3-DASD	119-90-4	0.002
27	4,4'-methylene-bis-(2-chloro-aniline) / 2,2'-dichloro-4,4'- methylene-dianiline	4,4'-M-b-2CA	101-14-4	0.002
28	4,4'-thiodianiline	4,4'-TDA	139-65-1	0.002
29	4-amino azobenzene	PAAB	60-09-3	0.002



TEST RESULT

Fastness of Fluorescence for Paper and Paperboard in Contact with Foodstuffs - § 30 and 31 LFGB and BfR Recommendation

Test Condition: Procedure B – Medium time contact: 4 h at (23 ± 2) °C

Parameter	Simulant Used	Result	Maximum Allowable Limit
		I001	
Fastness of Fluorescence	Ethanol 50%	Grade 5	No less than Grade 5
	3% Acetic acid	Grade 5	
Conclusion	-	PASS	-

Note: Scale: 5 = negligible or no change or staining;
4 = slightly changed or stained;
3 = noticeably changed or stained;
2 = considerably changed or stained;
1 = much changed or stained

Method: EN 648: 2018



