TEST REPORT

Applicant	:	Publik d.o.o.
Address	:	Vladike Nikolaja 469, 14000 Valjevo, Serbia

Report on the submitted sample said to be

Sample name	:	lunch box
Model	:	MISO (41.126.XX) where XX means color range, coded from 00-99
Manufacture	:	Asia Gateway Overseas Limited
Address	:	21F.,New World Tower 1, 18 Queen's Road, Central, Hong Kong
Sample received date	:	Jul. 08, 2021
Testing period	:	Jul. 08, 2021- Jul. 13, 2021
Test Result(s)		Please refer to the next pages

AP

Signed for and on behalf of

Lab Manager : **Bert Yang**

Jul. 13, 2021

Date of issue

Test Sample	Test Requested:	Conclusion
001	COMMISSION REGULATION (EU)No.10/2011 on plastic materials and articles intended to come into contact with food.- Overall migration - Soluble heavy metal - Primary aromatic amines - Specific migration of Bisphenol A (BPA) - Bisphenol A (BPA) Content - Specific migration of Formaldehyde - Specific migration of Melamine - Specific migration of Caprolactam	Pass
002	In accordance with Council of Europe Resolution AP(2002)1 relating to wood intended to come into contact with foodstuffs. - Sensorial examination odour and taste test - Extractable Heavy Metals - Pentachlorophenol (PCP) Content. - Preserving Effect. - Fluorescent whitening agents - Specific migration of benzophenone. - Specific migration of 4-methylbenzophenone. - Extractable formaldehyde.	Pass

Test Part Description

Specimen No.	Description.
001	Wheat straw plastic mixing
002	Bamboo cover

Test Result:

Overall migration

Method: With reference to EN1186-1:2002.

Test Condition: 100℃ 4Hour

Test Item(s).	Limit. (mg/dm2) (mg/kg)	Result		Conclusion
		001	002	
Distilled water	10/60	N.D.	N.D.	Pass
10% Ethanol(v/v)	10/60	N.D.	N.D.	Pass
3% Acetic acid(w/v)	10/60	N.D.	N.D.	Pass
50% Ethanol(v/v)	10/60	N.D.	N.D.	Pass
Vegetable oil	10/60	N.D.	N.D.	Pass
Poly(2,6-diphenyl-p-phenylene oxide)	10/60	N.D.	N.D.	Pass
95% Ethanol(v/v)	10/60	N.D.	N.D.	Pass
Isooctane	10/60	N.D.	N.D.	Pass

Note: 1. mg/dm2 = milligram per square decimetre of surface area of material or article.

2. mg/kg = milligrams of the constituents released per kilogram of foodstuff.
3. The requirement in accordance with the Commission Regulation (EU) No 10/2011.
4. The requirement in accordance with the Resolution AP (2004)1.
5. The requirement in accordance with the Resolution AP (2004)4.
6. The requirement in accordance with the Resolution AP (2004)5.

Soluble heavy metal

Method: Inductively coupled plasma atomic emission spectrometry (ICP-AES) was used for analysis.

Test Condition: 100℃ 4Hour

Elements	**Ba**	**Co**	**Cu**	**Fe**	**Li**	**Mn**	**Zn**	**Conclusion**
Limit (mg/kg)	1	0.05	5	48	0.6	0.6	25	
Material No.	**Result (mg/kg)**							
001	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	Pass

Note: 1. mg/kg = milligrams of the constituents released per kilogram of foodstuff.

2. The requirement in accordance with the Commission Regulation (EU) No 10/2011.

Primary aromatic amines

Method: With reference to EN 13130-1:2004, was analyzed by Ultraviolet–visible spectrometer (UV-Vis).

Test Condition: 100℃ 4Hour

Item	Unit	Result	Limit	Conclusion
		001		
3% Acetic acid(w/v)	mg/kg	N.D.	0.01	Pass

Note: 1. mg/kg = milligrams of the constituents released per kilogram of foodstuff.

2. The requirement in accordance with the Commission Regulation (EU) No 10/2011.

Specific migration of Bisphenol A (BPA)

Method: With reference to CEN/TS 13130-13:2005, analyzed by High Performance Liquid Chromatograph (HPLC-DAD).

Test Condition: 100℃ 4Hour

Item	Unit	Result	Limit	Conclusion
		001		
3% Acetic acid(w/v)	mg/kg	N.D.	0.6	Pass

Note: 1. mg/kg = milligrams of the constituents released per kilogram of foodstuff.

2. N.D. = Not Detected (< RL).

3. RL (Reporting Limit) = 0.1 mg/kg.

4. The requirement in accordance with the Commission Regulation (EU) No 10/2011.

Bisphenol A (BPA) Content

Method: Solvent extraction, analyzed by High Performance Liquid Chromatograph (HPLC-DAD)..

Test Condition: 100℃ 4Hour

Unit	Result	Limit	Conclusion
	001		
mg/kg	N.D.	N.D.	Pass

Note: 1. mg/kg = milligrams of the constituents released per kilogram of foodstuff.

2. N.D. = Not Detected (< RL).

3. RL (Reporting Limit) = 0.1 mg/kg.

4. The requirement in accordance with the Commission Regulation (EU) No 321/2011.

Specific migration of Formaldehyde

Method: With reference to CEN/TS 13130-23:2005, analyzed by Ultraviolet visible Spectroscopy (UV-Vis).

Test Condition: 100℃ 4Hour

Item	Unit	Result	Limit	Conclusion
		001		
3% Acetic acid(w/v)	mg/kg	N.D.	15	Pass

Note: 1. mg/kg = milligrams of the constituents released per kilogram of foodstuff.

2. The requirement in accordance with the Commission Regulation (EU) No 10/2011.

Specific migration of Melamine

Method: With reference to CEN/TS 13130-27:2005,analyzed by High Performance Liquid Chromatograph (HPLC-DAD).

Test Condition: 100℃ 4Hour

Item	Unit	Result	Limit	Conclusion
		001		
3% Acetic acid(w/v)	mg/kg	N.D.	2.5	Pass

Note: 1. mg/kg = milligrams of the constituents released per kilogram of foodstuff.

2. The requirement in accordance with the Commission Regulation (EU) No 1282/2011.

Specific migration of Caprolactam

Method: With reference to CEN/TS 13130-16:2005, analyzed by High Performance Liquid Chromatograph (HPLC-DAD).

Test Condition: 100℃ 4Hour

Item	Unit	Result	Limit	Conclusion
		001		
3% Acetic acid(w/v)	mg/kg	N.D.	15	Pass

Note: 1. mg/kg = milligrams of the constituents released per kilogram of foodstuff.

2. The requirement

Sensorial examination odour and taste test.

Test Method: With reference to DIN 10955:2004

Test media: Deionized Water

Test Item(s).	Limit.	Result	Conclusion
		002	
Sensorial examination odour (Point scale)	2.5.	N.D.	Pass
Sensorial examination taste (Point scale)	2.5.	N.D.	Pass

Extractable heavy metals.

Test Method: With reference to EN 645:1993 (cold water extraction),
analysis was performed by UV-Vis and ICP-OES / ICP-MS.

Test Item	Result (mg/ dm^2)	MDL (mg/ dm^2)	Maximum Permissible Limit (mg/dm^2)	Conclusion
	002			
Extractable Lead	N.D.	0.002	0.003	Pass
Extractable Cadmium	N.D.	0.002	0.002	Pass
Extractable Mercury	N.D.	0.002	0.002	Pass

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

2. N.D. = Not Detected (< MDL)

3. MDL = Method Detection Limit

Pentachlorophenol (PCP).

Test Method: With reference to LFGB § 64 BVL B 82.02.8 – 2001, analysis was performed by GC-MS.

Item	Unit	Result	MDL	Maximum Permissible Limit	Conclusion
		002			
PCP Content	mg/kg	N.D.	0.1	0.15	Pass

Note: mg/kg = ppm

Preserving effect.

Test Method: With reference to EN 1104:2005.

Tested Fungus	Test result.	Specification	Conclusion
	002		
Bacillus subtilis ATCC No. 6633 .	Absent	Absence of zone inhibition	Pass
Aspergillus niger ATCC No.6275	Absent	Absence of zone inhibition	Pass

Note: 1.Absent denotes absence of Antimicrobic constituents which inhibits the growth of tested bacteria and fungus

Fastness of Fluorescent whitening agents

Test Method: As per BS EN 648:2006 procedure B (short time contact).

Item	Test result.	Limit	Conclusion
	002		
Deionized Water	No staining	No staining (Grade 5)	Pass
Aqueous Acetic Acid 3.0% (m/v)	No staining	No staining (Grade 5)	Pass
Saliva Simulant 5g/L	No staining	No staining (Grade 5)	Pass
Rectified Olive Oil	No staining	No staining (Grade 5)	Pass

Specific migration of benzophenone.

Test Method: With reference to EN 13130-1:2004, analysis was performed by GC-MS. .

Item	Unit	Test result.	MDL	Limit	Conclusion
		002			
Specific migration of benzophenone	mg/kg.	N.D.	0.2	0.6.	Pass

Specific migration of 4-methylbenzophenone.

Test Method: With reference to EN 13130-1:2004, analysis was performed by GC-MS.

Item	Unit	Test result.	MDL	Limit	Conclusion
		002			
Specific migration of 4-methylbenzophenone .	mg/kg	N.D.	0.2	0.2	Pass

Extractable formaldehyde.

Test Method:With reference to EN 645:1994 (cold water extraction) and EN 1541:2001, analysis was performed by UV-Vis.

Item	Unit	Test result.	MDL	Limit	Conclusion
		002			
Extractable formaldehyde	mg/dm^2.	N.D.	0.1	1	Pass

Picture of sample

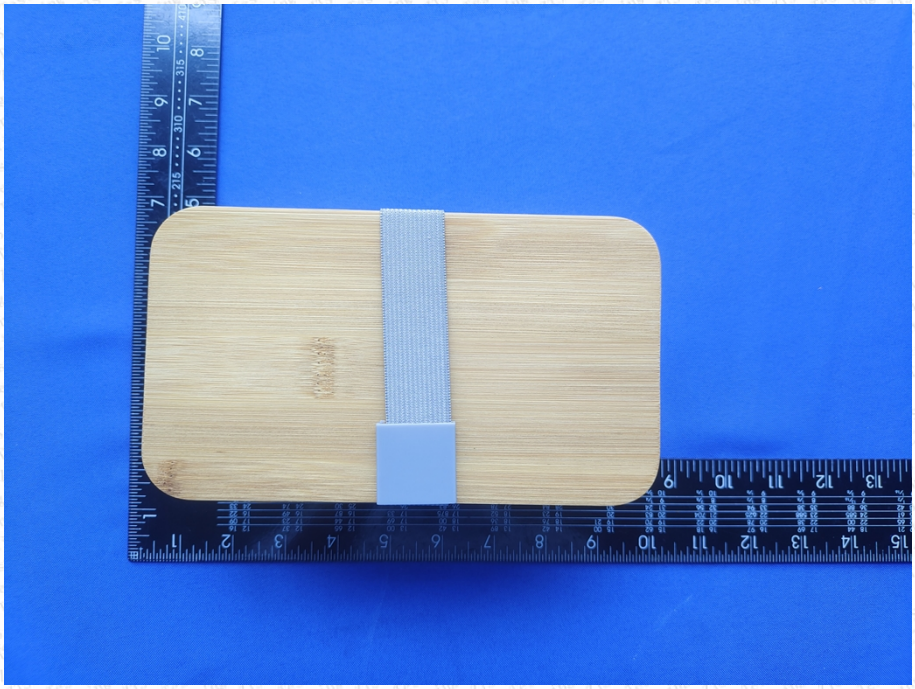

Photo 1

Photo 2

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