

## NANOLAB LABORATORY SERVICES

### REPORT of EXAMINATION and ANALYSIS

AB-0566-T

U22-422/0

02-22

Report/Rev No/Rea. D. : U22-422/0/24.02.2022

The Purpose of Analysis : SpecialRequest

Sample Sent by : ÜSTÜN PLASTİK AMB. SAN. VE TİC. A.Ş.  
İKİTELLİ OSB 25. CAD. NO:14/1,  
BAŞAKŞEHİR/İSTANBUL

Sample Name : PACKAGING - POLYPROPYLEN TUB

Sample Quantity : 56 ADET

Sample Package : Original

Serial - Part Number : -

Analysis Start - Finish Date : 03.02.2022 - 24.02.2022

Sample Arrival Date / Method : 03.02.2022/-

Analysis	Results	Method / Device	R (%)	E.U.(±)	LOQ	Limit	E
1-*Total Migration (Oily Foods - 95% Ethyl Alcohol) (For Disposable Products) <sup>(4)(6)</sup> (mg/dm <sup>2</sup> )	1,90	TS EN 1186-14 Gravimetric Method				≤ 10	P
2-*Total Migration (Oily Foods - Iso Octane) (For Disposable Products) <sup>(4)(6)</sup> (mg/dm <sup>2</sup> )	2,10	TS EN 1186-14 Gravimetric Method				≤ 10	P
3-*Total Migration (10% EtOH) (in Disposable Products) <sup>(4)(6)</sup> (mg/dm <sup>2</sup> )	0,90	TS EN 1186-9 Gravimetric Method				≤ 10	P
4-*Total Migration (3% Acetic Acid) (in Disposable Products) <sup>(4)(6)</sup> (mg/dm <sup>2</sup> )	0,70	TS EN 1186-9 Gravimetric Method				≤ 10	P
5-*Specific Migration Assay-Primer Aromatic Amine (Migration) <sup>(1)</sup> (ppm)	Not Detected	EUR 24815 EN 2011 LC-MS/MS			0,01	Absent	P
6-*Specific Migration Assay-Phthalate (Migration) <sup>(2)</sup>		BS EN 13130-1 Agilent App Note LC-MS/MS					
1-*Phthalic Acid, Dibutyl Ester (DBP) (mg/kg)	Not Detected	BS EN 13130-1 Agilent App Note LC-MS/MS				≤ 0,3	P
2-*Phthalic Acid, Benzyl Butyl Ester (BBP) (mg/kg)	Not Detected	BS EN 13130-1 Agilent App Note LC-MS/MS				≤ 30	P
3-*Phthalic Acid, Bis(2-ethylhexyl) Ester (DEHP) (mg/kg)	Not Detected	BS EN 13130-1 Agilent App Note LC-MS/MS				≤ 1,5	P
4-*Diisodecyl phthalate (DIDP) (mg/kg)	Not Detected	BS EN 13130-1 Agilent App Note LC-MS/MS				DIDP+DINP ≤ 9	P
5-*Diisononyl phthalate (DINP) (mg/kg)	Not Detected	BS EN 13130-1 Agilent App Note LC-MS/MS				DIDP+DINP ≤ 9	P

Damla ÇAYLI

Che. Lab.

Manager

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İrfan ÜRKMEZ

ERMM Lab.

Manager

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Bülent TATLISÖZ

Manager of Sample

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24.02.2022  
Ceyhun KASAPÖZÜ  
Lab. Manager

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A. Kahveci Mh. Çankaya Cd. Vadi İş Mrkz. N-2 E K: 2 No: 25 Beylikdüzü - İSTANBUL

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7-*Specific Migration-Bisphenol A Determination <sup>(2)</sup> (mg/kg)	Not Detected	EN 14372 HPLC-FLD			0,002	≤ 0,05	P
8-*Specific Migration Test-Heavy Metal <sup>(9)</sup>		BS EN 13130-1 NMKL 186 ICP-MS					
1-*Barium (Ba) (mg/kg)	Not Detected	BS EN 13130-1 NMKL 186 ICP-MS	94,00		0,129	≤ 1	P
2-Lead (Pb) (mg/kg)	Not Detected	BS EN 13130-1 NMKL 186 ICP-MS	94,00		0,129	Absent	P
3-Cadmium (Cd) (mg/kg)	Not Detected	BS EN 13130-1 NMKL 186 ICP-MS	94,00		0,129	Absent	P
4-Chrome (Cr) (mg/kg)	Not Detected	BS EN 13130-1 NMKL 186 ICP-MS	94,00		0,129	Absent	P
5-Antimony (Sb) (mg/kg)	Not Detected	BS EN 13130-1 NMKL 186 ICP-MS	94,00		0,129	≤ 0,04	P
6-Tin (Sn) (mg/kg)	Not Detected	BS EN 13130-1 NMKL 186 ICP-MS	94,00		0,129		NI
7-Arsenic (As) (mg/kg)	Not Detected	BS EN 13130-1 NMKL 186 ICP-MS				Absent	P
8-Mercury (Hg) (mg/kg)	Not Detected	BS EN 13130-1 NMKL 186 ICP-MS				Absent	P
9-Selenium (Se) (mg/kg)	Not Detected	BS EN 13130-1 NMKL 186 ICP-MS					NI
10-Kalsiyum (Ca) (mg/kg)	Not Detected	BS EN 13130-1 NMKL 186 ICP-MS					NI
11-Magnezyum (Mg) (mg/kg)	Not Detected	BS EN 13130-1 NMKL 186 ICP-MS					NI

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12-*Cobalt (Co) (mg/kg)	Not Detected	BS EN 13130-1 NMKL 186 ICP-MS	94,00		0,02	≤ 0,05	P
13-Potasyum (K) (mg/kg)	Not Detected	BS EN 13130-1 NMKL 186 ICP-MS					NI
14-Sodyum (Na) (mg/kg)	Not Detected	BS EN 13130-1 NMKL 186 ICP-MS					NI
15-Europium (mg/kg)	Not Detected	BS EN 13130-1 NMKL 186 ICP-MS				≤ 0,05	P
16-Gadolinium (mg/kg)	Not Detected	BS EN 13130-1 NMKL 186 ICP-MS				≤ 0,05	P
17-Lanthanum (mg/kg)	Not Detected	BS EN 13130-1 NMKL 186 ICP-MS				≤ 0,05	P
18-Terbium (mg/kg)	Not Detected	BS EN 13130-1 NMKL 186 ICP-MS				≤ 0,05	P
19-*Copper (Cu) (mg/kg)	Not Detected	BS EN 13130-1 NMKL 186 ICP-MS	94,00		0,301	≤ 5	P
20-*Iron (Fe) (mg/kg)	Not Detected	BS EN 13130-1 NMKL 186 ICP-MS	94,00		6,506	≤ 48	P
21-*Lithium (Li) (mg/kg)	Not Detected	BS EN 13130-1 NMKL 186 ICP-MS	94,00		0,089	≤ 0,6	P
22-*Mangan (Mn) (mg/kg)	Not Detected	BS EN 13130-1 NMKL 186 ICP-MS	94,00		0,086	≤ 0,6	P
23-*Zinc (Zn) (mg/kg)	Not Detected	BS EN 13130-1 NMKL 186 ICP-MS	94,00		4,072	≤ 5	P

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24-*Nickel (Ni) (mg/kg)	Not Detected	BS EN 13130-1 NMKL 186 ICP-MS	88,167		0,005	≤ 0,02	P
25-*Aluminum (Al) (mg/kg)	Not Detected	BS EN 13130-1 NMKL 186 ICP-MS	94,00		0,2	≤ 1	P

Nanolab Laboratuvar Hizmetleri Kimya Gıda Danışmanlık Çevre Eğitim San. ve Tic. Ltd. Şti. accredited by TÜRKAK under registration number AB-0566-T for TS EN ISO / IEC 17025 as test laboratory

Turkish Accreditation Agency (TÜRKAK) is a signatory to the European co-operation for Accreditation (EA) Multilateral Agreement (MLA) and to the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement (MRA) for the recognition of test reports

- No part of the analysis report can not be used alone or separately.
- This report can not be used in judicial-administrative proceedings and for advertising purposes.
- Analysis results are valid for the above mentioned sample.
- This report may not be partially copied or reproduced without the written permission of the laboratory.
- Unsigned and unsealed reports are not valid.
- The above mentioned values were determined as the result of the examination and analysis.
- Abbreviations; E : Evaluation, P : Pass, F : Fail, N.I. : Not Interpreted, R : Recovery, E.U. : Expanded Uncertainty, LOQ : Limit of Quantification
- The analysis signed with "\*" are in the scope of accreditation.
- Migration Determination was performed at 40°C, 10 days using Food Similar B without repetition. <sup>(1)</sup>
- Determination of Migration was made without repetition with Food Simulated A, B, D2/ substitution 95% Ethyl Alcohol at 20°C, 10 days conditions and Food Similar D2/ substitution isooctane at 20°C, 1 day conditions. <sup>(2)</sup>
- Migration Detection was carried out without repetition with Food-Like A, B and D2/substitute with 95% ethyl alcohol at 40°C, 10 days and Food-Like D2/substitute with isooctane at 20°C for 2 days. <sup>(3)</sup>
- It was made by filling method according to disposable products at 40°C, 10 days conditions. <sup>(4)</sup>
- It has been evaluated according to the Turkish Food Codex Communiqué on Plastic Substances and Materials in Contact with Food. <sup>(5)</sup>
- It was made by filling method according to disposable products at 20°C, 2 days conditions. <sup>(6)</sup>
- Specific Migration Assay-Primer Aromatic Amine (Migration) not detectable at the limit of quantification / Name [LOQ] Accreditation status: LC-MS/MS (0,01) :\*(2,4,5-Trimethylaniline (2,4,5-TMA), \*2,4-Diaminoanisole (4-M-m-PDA), \*2,4-Diaminotolunene (2,4-TDA), \*2,4-Dimethylaniline (2,4-DMA), \*2,6-Dimethylaniline (2,6-DMA), \*2-Methoxy-5-methylaniline (2-M-5-MA), \*2-Methyl-m-phenylenediamine (2,6-TDA), \*4,4'-Diaminodiphenylmethane (4,4'-MDA), \*4,4'-Methylene-bis-(2-methyl-aniline) (4,4'-MDoT), \*4,4'-Oxydianiline (4,4'-DPE), \*4-Aminobiphenyl (4-ABP), \*4-Chloro-2-methylaniline (4-CoT), \*4-Chloroaniline (4-CA); Aniline (ANL), \*Benzidine (BNZ), \*m-Phenylenediamine (m-PDA), \*o-Anisidine (o-ASD), \*o-Tolidine (3,3'-Dimethylbenzidine) (3,3'-DMB), \*o-Tolidine (o-T), \*p-Phenylenediamine (p-PDA)

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