ناشونال لابوراتوري اند ريسيرش سنتر م.م.ح
National Laboratory & Research Center
Head Office: P.O Box 5013, Fujairah Free Zone II – Fujairah - UAE
Dubai Office: M 08-40 Crystal Tower, Business Bay Dubai – UAE
+971 9 2243774 +971 9 2232755 info@nlrc-ae.com www.nlrc-ae.com

ilac-MRA IAS ACCREDITED Testing Laboratory TL-1167

TEST REPORT

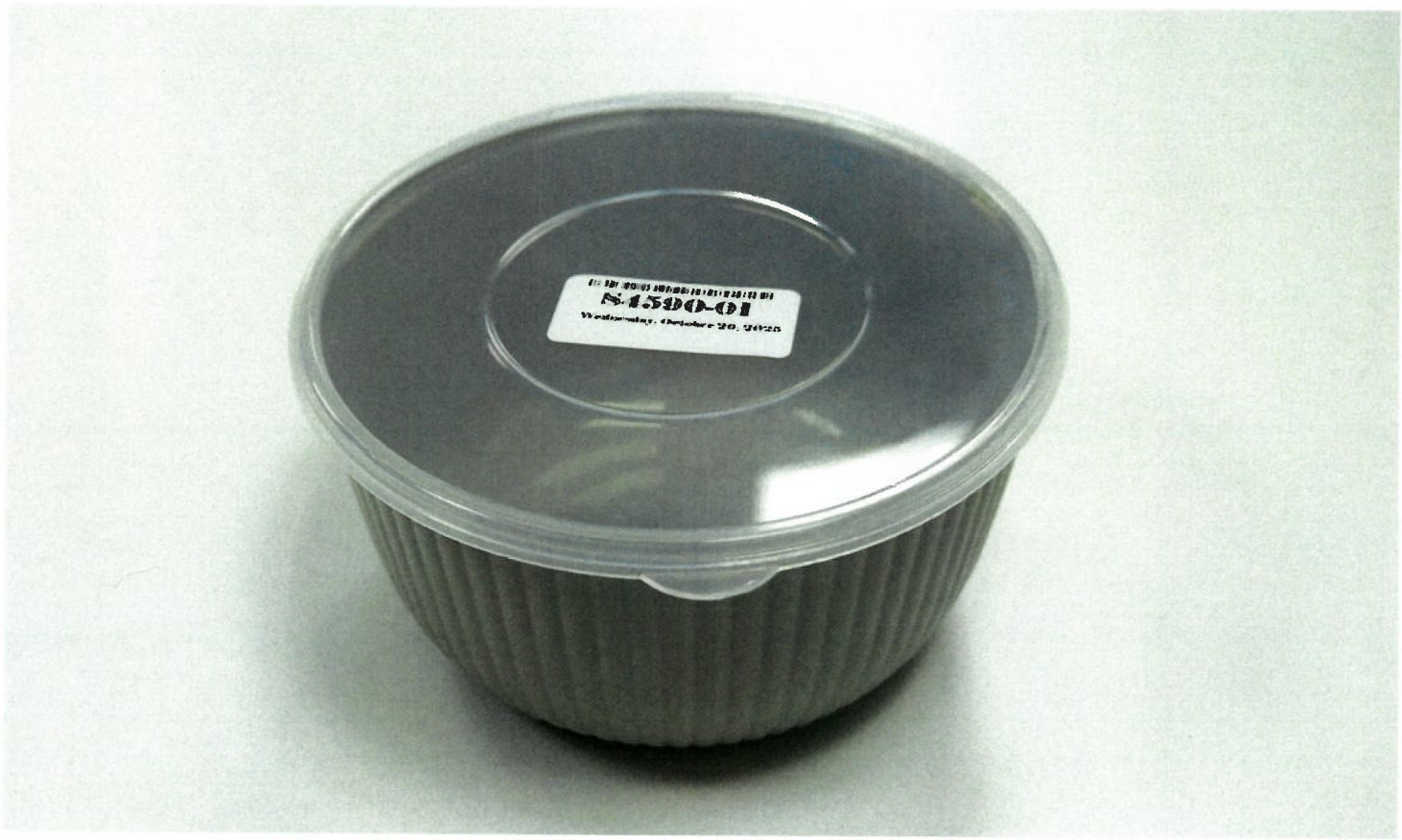
Report Number: **NLRC/25-R4590-01/A** **Date of Issue:** **November 24, 2025**

Company Name: EMHOUSE PLASTİK SANAYİ VE TİCARET LİMİTED ŞİRKETİ
Address: DELİKLİKAYA MAH. ERSEL CAD. NO: 18 A ARNAVUTKÖY/ İSTANBUL

SAMPLE DETAIL

Sample Description:	LUNO BOWL WITH LID	Sampled by:	Client Representative
Brand Name:	EMHOUSE	Date Received:	29/10/2025
Batch No.:	N/A	Lab. Request No.:	NLRC/25/10/JO-4590
Material:	PP	Sample No.:	**S4590-01**
Manufacturer name:	EMHOUSE PLASTIK SAN VE TIC LTD STI	Date of Test:	04/11/2025
Country of Origin:	TURKEY	End of Test:	22/11/2025
Reference:	Sample Request Form		

PHOTO



FUJAIRAH U.A.E. NATIONAL LABORATORY & RESEARCH CENTER FZE

ناشونال لابوراتوري اند ريسيرش سنتر م.م.ح
National Laboratory & Research Center
Head Office: P.O Box 5013, Fujairah Free Zone II – Fujairah - UAE
Dubai Office: M 08-40 Crystal Tower, Business Bay Dubai – UAE
+971 9 2243774 +971 9 2232755 info@nlrc-ae.com www.nlrc-ae.com

ilac-MRA IAS ACCREDITED Testing Laboratory TL-1167

TEST REPORT

Report Number: NLRC/25-R4590-01/A **Sample No.:** S4590-01 **Date of Issue:** November 24, 2025

TEST REQUESTED/CONCLUSION		
SL.NO	**REQUESTED STANDARD**	**CONCLUSION**
1	DETERMINATION OF OVERALL MIGRATION – SIMULANT (B) 3% ACETIC ACID	PASS
2	DETERMINATION OF OVERALL MIGRATION – SIMULANT (A) 10% ETHANOL	PASS
3	DETERMINATION OF OVERALL MIGRATION – SIMULANT (D2) RECTIFIED OLIVE OIL	PASS
4	DETERMINATION OF SPECIFIC MIGRATION OF HEAVY METALS	PASS
5	DETERMINATION OF SPECIFIC MIGRATION OF BISPHENOL-A	PASS
6	DETERMINATION OF BISPHENOL-A CONTENT	PASS
7	DETERMINATION OF SENSORY EVALUATION	PASS
8	DETERMINATION OF POLYCYCLIC AROMATIC HYDROCARBONS (PAHs)	PASS
9	DETERMINATION OF MIGRATION OF PHTHALATES	PASS
10	DETERMINATION OF SPECIFIC MIGRATION OF PRIMARY AROMATIC AMINES	PASS
11	DETERMINATION OF VOLATILE COMPOUNDS CONTENT	PASS
12	DETERMINATION OF PEROXIDE VALUE	PASS
13	DETERMINATION OF MIGRATION OF AMMONIUM	PASS
14	DETERMINATION OF TOTAL HEAVY METAL CONTENT - LEAD	PASS
15	DETERMINATION OF TOTAL HEAVY METAL CONTENT - CADMIUM	PASS

FUJAIRAH U.A.E. NATIONAL LABORATORY & RESEARCH CENTER FZE

ناشونال لابوراتوري أند ريسيرش سنتر م.م.ح
National Laboratory & Research Center
Head Office: P.O Box 5013, Fujairah Free Zone II – Fujairah - UAE
Dubai Office: M 08-40 Crystal Tower, Business Bay Dubai – UAE
+971 9 2243774 +971 9 2232755 info@nlrc-ae.com www.nlrc-ae.com

ACCREDITED Testing Laboratory TL-1167

TEST REPORT

Report Number: NLRC/25-R4590-01/A **Sample No.:** S4590-01 **Date of Issue:** November 24, 2025

PARAMETERS / RESULTS

1. DETERMINATION OF OVERALL MIGRATION

Test Method:	With reference to Commission Regulation (EU) No 10/2011 of 14 January 2011 Annex III and Annex V for selection of condition and EN 1186-1:2002 for selection of test methods: EN 1186-9: 2002 aqueous food simulants by article filling method
Tested Part:	Bowl and Lid

Simulant used	Time	Temperature	Unit	MDL	Max. Permissible Limit	Result			
						1	2	3	Mean
Food simulant A Ethanol 10% (v/v)	10 Days	40 °C	mg/kg	15	60	< 15	< 15	< 15	< 15
Food simulant B Acetic acid 3% (w/v)	10 Days	40 °C	mg/kg	15	60	< 15	< 15	< 15	< 15
Food simulant D2 Rectified olive oil	10 Days	40 °C	mg/kg	15	60	< 15	< 15	< 15	< 15

2. DETERMINATION OF SPECIFIC MIGRATION OF HEAVY METALS

Test Method:	With reference to Commission Regulation (EU) No 2020/1245 of 2 September 2020 amending (EU) No 10/2011 of 14 January 2011 Annex II for migration limit, EN 13130-1:2004 for test preparation methods, analysis was performed by ICP-MS/ In-House SOP -NLRC-AL-126.
Simulant Used:	3% Acetic Acid (w/v) Aqueous Solution,
Test Conditions:	Temperature:70 °C, Duration: 2.0 hours
Tested Part:	Bowl and Lid

S. No	Compounds / Test Items	Unit	MDL	Max. Permissible Limit	Results							
					Bowl				Lid			
					1st	2nd	3rd	Mean	1st	2nd	3rd	Mean
1	Barium(Ba)	mg/kg	0.001	< 1	ND	ND	ND	ND	ND	ND	ND	ND
2	Cobalt (Co)	mg/kg	0.0001	< 0.05	ND	ND	ND	ND	ND	ND	ND	ND
3	Copper (Cu)	mg/kg	0.001	< 5	ND	ND	ND	ND	ND	ND	ND	ND
4	Iron (Fe)	mg/kg	0.01	< 48	ND	ND	ND	ND	ND	ND	0.01	0.01
5	Lithium (Li)	mg/kg	0.0005	≤ 0.6	ND	ND	ND	ND	ND	ND	ND	ND
6	Manganese (Mn)	mg/kg	0.0002	< 0.6	ND	0.001	0.002	0.0015	ND	ND	ND	ND
7	Zinc (Zn)	mg/kg	0.005	≤ 5	ND	0.01	ND	ND	ND	ND	0.02	0.02
8	Cadmium (Cd)	mg/kg	0.0005	ND (LOD 0.002)	ND	ND	ND	ND	ND	ND	ND	ND
9	Lead (Pb)	mg/kg	0.0005	ND (LOD 0.01)	ND	ND	ND	ND	ND	ND	ND	ND
10	* Mercury (Hg)	mg/kg	0.0005	ND (LOD 0.01)	ND	ND	ND	ND	ND	ND	ND	ND
11	Arsenic (As)	mg/kg	0.0005	ND (LOD 0.01)	ND	ND	ND	ND	ND	ND	ND	ND
12	Chromium (Cr)	mg/kg	0.0005	ND (LOD 0.01)	ND	ND	ND	ND	ND	ND	ND	ND
13	Antimony (Sb)	mg/kg	0.0005	< 0.04	ND	ND	ND	ND	ND	ND	ND	ND
14	Nickel (Ni)	mg/kg	0.0005	< 0.02	ND	ND	ND	ND	ND	ND	ND	ND
15	Aluminium (Al)	mg/kg	0.01	≤ 1	ND	ND	ND	ND	ND	ND	ND	ND
16	* Magnesium (Mg)	mg/kg	0.02	-	ND	ND	ND	ND	ND	ND	ND	ND
17	* Calcium (Ca)	mg/kg	0.1	-	0.17	0.23	0.24	0.213	ND	ND	0.10	0.10
18	* Potassium (K)	mg/kg	0.1	-	ND	ND	ND	ND	ND	ND	0.15	0.15
19	* Sodium (Na)	mg/kg	0.1	-	ND	ND	ND	ND	ND	ND	0.12	0.12

FUJAIRAH U.A.E.

ناشونال لابوراتوري اند ريسيرش سنتر م.م.ح
National Laboratory & Research Center
Head Office: P.O Box 5013, Fujairah Free Zone II – Fujairah - UAE
Dubai Office: M 08-40 Crystal Tower, Business Bay Dubai – UAE
+971 9 2243774 +971 9 2232755 info@nlrc-ae.com www.nlrc-ae.com

ilac-MRA IAS ACCREDITED Testing Laboratory TL-1167

TEST REPORT

Report Number: NLRC/25-R4590-01/A **Sample No.:** S4590-01 **Date of Issue:** November 24, 2025

PARAMETERS / RESULTS

3. DETERMINATION OF SPECIFIC MIGRATION OF BISPHENOL- A

Test Method:	NLRC-SOP-AL-125, with reference to Commission Regulation (EU) No 10/2011 for the selection of test conditions and EN 13130-1,13 analysis was performed by LC/MSMS. Limits were given as per the Commission regulation (EU) No 2024/3190.
Simulant Used:	3% Acetic Acid (W/V) Aqueous Solution, Temperature:70 °C, Duration: 2.0 hours
Tested Part:	Bowl and Lid

S. No	Compounds / Test Items	Unit	MDL	Maximum Permissible Limit	Result			
					1st	2nd	3rd	Mean
1	Bisphenol - A	mg/kg	0.001	Shall not be detectable	ND	ND	ND	ND

4.* DETERMINATION OF BISPHENOL-A CONTENT

Test Method:	With reference to Commission Regulation (EU) No 10/2011 for the selection of test conditions, and ISO 11936, analysis was performed by LC/MSMS. Limits were given as per the Commission regulation (EU) No 2024/3190.
Simulant Used:	3% Acetic Acid (W/V) Aqueous Solution, Temperature:70 °C, Duration: 2.0 hours
Tested part:	Bowl and Lid

S. No	Compounds / Test Items	Unit	MDL	Max. Permissible Limit	Result
1	Bisphenol- A	mg/kg	0.001	Shall not be detectable	ND

5. DETERMINATION OF SENSORY EVALUATION

Test Method:	DIN 10955: 2024
Simulant Used:	Unsalted butter and Grated Milk chocolate
Test Conditions:	Temperature - 23°C, Duration - 24 hours
Tested Part:	Bowl and Lid

S. No	Parameters	Max. Permissible Limit	Result (1)
1	Taste	≤ 2.5	0
2	Odour	≤ 2.5	0

6. DETERMINATION OF POLYCYCLIC AROMATIC HYDROCARBONS (PAHs)

Test Method:	German Food, Articles of Daily Use and Feed Code of September 1, 2005 (LFGB), Section 30 and 31 with amendments and BfR recommendation- amendments and BfR recommendation-With reference to AFPS GS 2014:01 PAK, analysis was performed by GC-MS
Tested Part:	Bowl and Lid

S. No	Parameters	CAS-No	Units	MDL	Max. Permissible Limit	Result
1	Benzo (a)pyrene (Bap)	50-32-8	mg/kg	0.1	< 0.2	ND
2	Benzo (e)pyrene (Bep)	192-97-2	mg/kg	0.1	< 0.2	ND
3	Benzo (a) anthracene (BaA)	56-55-3	mg/kg	0.1	< 0.2	ND
4	Chrysene (CHR)	218-01-9	mg/kg	0.1	< 0.2	ND
5	Benzo (b) fluoranthene (BbF)	205-99-2	mg/kg	0.1	< 0.2	ND
6	Benzo (j) fluoranthene (BjF)	205-82-3	mg/kg	0.1	< 0.2	ND
7	Benzo (k) fluoranthene (BkF)	207-08-9	mg/kg	0.1	< 0.2	ND
8	Dibenzo(a,h) anthracene (DBA)	53-70-3	mg/kg	0.1	< 0.2	ND

FUJAIRAH U.A.E. NATIONAL LABORATORY & RESEARCH CENTER FZE

ناشونال لابوراتوري اند ريسيرش سنتر م.م.ح
National Laboratory & Research Center
Head Office: P.O Box 5013, Fujairah Free Zone II – Fujairah - UAE
Dubai Office: M 08-40 Crystal Tower, Business Bay Dubai – UAE
+971 9 2243774 +971 9 2232755 info@nlrc-ae.com www.nlrc-ae.com

ACCREDITED Testing Laboratory TL-1167

TEST REPORT

Report Number: NLRC/25-R4590-01/A **Sample No.:** S4590-01 **Date of Issue:** November 24, 2025

PARAMETERS / RESULTS

7. DETERMINATION OF MIGRATION OF PHTHALATES

Test Method:	With reference to Commission Regulation (EU) No 10/2011 for the selection of test conditions and EN 13130-1:2004 for test preparation methods, analysis was performed by GC-MS
Simulant Used:	3% Acetic Acid (W/V) Aqueous Solution, Temperature:70 °C, Duration: 2.0 hours
Tested Part:	Bowl and Lid

S. No	Compounds / Test Items	Unit	MDL	Max. Permissible Limit (2)	Result
1	Dimethyl phthalate	mg/kg	1.0	1000	**ND**
2	Diethyl Phthalate	mg/kg	1.0	1000	**ND**
3	Di-n-butyl phthalate	mg/kg	1.0	1000	**ND**
4	Bis(2-methoxyethyl) phthalate	mg/kg	1.0	1000	**ND**
5	Diamyl Phthalate	mg/kg	1.0	1000	**ND**
6	Benzyl butyl phthalate	mg/kg	1.0	1000	**ND**
7	dicyclohexyl phthalate	mg/kg	1.0	1000	**ND**
8	Bis(2-ethylhexyl) phthalate	mg/kg	1.0	1000	**ND**
9	Di-n-octyl phthalate	mg/kg	1.0	1000	**ND**
10	Di iso nonyl phthalate	mg/kg	1.0	1000	**ND**
11	Di iso decyl phthalate	mg/kg	1.0	1000	**ND**

8. *DETERMINATION OF VOLATILE COMPOUNDS CONTENT

Test Method:	French decree 25/11/92/ EN 1400:2013+A2:2018
Test Conditions:	Temperature:200°C, Duration: 4.0 hours
Tested Part:	Bowl and Lid

S. No	Compounds / Test Items	Unit	Max. Permissible Limit	Result	
				Bowl	Lid
1	Volatile Compounds (VOC)	%	< 0.5	**0.14**	**0.10**

9. *DETERMINATION OF PEROXIDE VALUE

Test Method:	European Pharmacopoeia
Tested Part:	Bowl and Lid

S. No	Compounds / Test Items	Unit	LOQ	Max. Permissible Limit	Result
1	Peroxide value	meq/kg	0.1	Absent	**Absent**

10.* DETERMINATION OF MIGRATION OF AMMONIUM

Test Method:	In-house method analysis was performed by IC
Simulant Used:	3% Acetic Acid (W/V) Aqueous Solution, Temperature:70 °C, Duration: 2.0 hours
Tested Part:	Bowl and Lid

S. No	Compounds / Test Items	Unit	LOQ	Max. Permissible Limit (2)	Result
1	Ammonium	mg/L	0.1	0.5	**ND**

11. DETERMINATION OF TOTAL HEAVY METAL CONTENT

Test Method:	In-House SOP-NLRC AL-116 analysis was performed by ICP-MS
Tested Part:	Bowl and Lid

S. No	Compounds / Test Items	Unit	LOQ	Max. Permissible Limit (2)	Result	
					Bowl	Lid
1	Lead (Pb)	mg/kg	0.5	500	**134.26**	**ND**
2	Cadmium (Cd)	mg/kg	0.5	100	**ND**	**ND**

FUJAIRAH U.A.E.

ناشونال لابوراتوري اند ريسيرش سنتر م.م.ح
National Laboratory & Research Center
Head Office: P.O Box 5013, Fujairah Free Zone II – Fujairah - UAE
Dubai Office: M 08-40 Crystal Tower, Business Bay Dubai – UAE
+971 9 2243774 +971 9 2232755 info@nlrc-ae.com www.nlrc-ae.com

ilac-MRA IAS ACCREDITED Testing Laboratory TL-1167

TEST REPORT

Report Number: NLRC/25-R4590-01/A **Sample No.:** S4590-01 **Date of Issue:** November 24, 2025

PARAMETERS / RESULTS	
12. DETERMINATION OF SPECIFIC MIGRATION OF PRIMARY AROMATIC AMINES	
Test Method	With reference to Commission Regulation (EU) No 2020/1245 of 2 September 2020 amending (EU) No 10/2011 of 14 January 2011, Annex II for migration limit, EN 13130-1 for selection of test method and analysis was performed by LC-MS/MS
Simulant used:	Acetic acid 3% (w/v) Aqueous Solution
Test Conditions:	Temperature: 70 °C, Duration: 2 hours
Tested Part:	Bowl and Lid
Remarks:	The sample was tested under repeated use conditions in three runs, and the result from the third run is reported.

Parameters	Unit	MDL	Max. Permissible Limit	Mean Result
o-Toluidine	mg/kg	0.002	Shall be absent[1]	ND
2- methoxyaniline	mg/kg	0.002	Shall be absent[1]	ND
4-Chloroaniline	mg/kg	0.002	Shall be absent[1]	ND
2-Methoxy-5-methylaniline	mg/kg	0.002	Shall be absent[1]	ND
2,4,5-Trimethylaniline	mg/kg	0.002	Shall be absent[1]	ND
4-Chloro-o-toluidine	mg/kg	0.002	Shall be absent[1]	ND
2,4- Diaminotoluene	mg/kg	0.002	Shall be absent[1]	ND
2,4- Diaminoanisole	mg/kg	0.002	Shall be absent[1]	ND
2-Naphthalenamine	mg/kg	0.002	Shall be absent[1]	ND
5-nitro-o-toluidine	mg/kg	0.002	Shall be absent[1]	ND
4-Aminobiphenyl	mg/kg	0.002	Shall be absent[1]	ND
p-Phenylazoaniline	mg/kg	0.002	Shall be absent[1]	ND
4-Aminophenylether	mg/kg	0.002	Shall be absent[1]	ND
Benzidine	mg/kg	0.002	Shall be absent[1]	ND
4,4-methylenedianiline	mg/kg	0.002	Shall be absent[1]	ND
o-aminoazotoluene	mg/kg	0.002	Shall be absent[1]	ND
3,3-dimethyl-4,4-diaminonodiphenylmethane	mg/kg	0.002	Shall be absent[1]	ND
3,3-Dimethylbenzidine	mg/kg	0.002	Shall be absent[1]	ND
4,4-thiodianiline	mg/kg	0.002	Shall be absent[1]	ND
3.3-dichlorobenzidine	mg/kg	0.002	Shall be absent[1]	ND
4,4- methylene-bis-chloroaniline	mg/kg	0.002	Shall be absent[1]	ND
3,3-Dimethoxybenzidine	mg/kg	0.002	Shall be absent[1]	ND
Sum of PAA	mg/kg	-	0.01	ND
Remarks	[1]Shall not be detected with the detection limit LOD-0.002 mg/kg			

FUJAIRAH U.A.E.

ناشونال لابوراتوري اند ريسيرش سنتر م.م.ح
National Laboratory & Research Center
Head Office: P.O Box 5013, Fujairah Free Zone II – Fujairah - UAE
Dubai Office: M 08-40 Crystal Tower, Business Bay Dubai – UAE
+971 9 2243774 +971 9 2232755 info@nlrc-ae.com www.nlrc-ae.com

ilac-MRA IAS ACCREDITED Testing Laboratory TL-1167

TEST REPORT

Report Number: NLRC/25-R4590-01/A **Sample No.:** S4590-01 **Date of Issue:** November 24, 2025

Remarks if any:
(1) Gradings are listed below:

0	No perceptible difference in Taste/ Odour
1	Just perceptible difference in Taste/ Odour (still difficult to define)
2	Slight difference in Taste/ Odour
3	Marked difference in Taste/ Odour
4	Strong difference in Taste/ Odour

(2) Required limits are provided by the client.

The items listed below has been provided by the client and incorporated as per the client's request. NLRC shall not hold responsibility related to the below mentioned items:

ITEM DESCRIPTION	ITEM CODE
EGG BOX 12 PCS	EP-140
LUNO 500 ML BOWL WITH LID	EP-210
LUNO 1300 ML BOWL WITH LID	EP-211
LUNO 2600 ML BOWL WITH LID	EP-212
LUNO 4200 ML BOWL WITH LID	EP-213
LUNO 3 PCS BOWL SET WITH LID 500-1300-2600 ML	EP-214
LUNO 4 PCS BOWL SET WITH LID 500-1300-2600-4200 ML	EP-215
LUNO 3 PCS BOWL SET WITH LID 1300-2600-4200 ML	EP-216
600 ML DRY FOOD STORAGE	EP-510
1200 ML DRY FOOD STORAGE	EP-511
1700 ML DRY FOOD STORAGE	EP-512
2400 ML DRY FOOD STORAGE	EP-513
4000 ML DRY FOOD STORAGE	EP-514
3 SIZE MICROWAVE FOOD STORAGE SET (500-1000-2000 ML)	EP-305
5 SIZE RECTANGLE FOOD STORAGE SET (330-530-850-1300-2100 ML)	EP-500
RECTANGLE CAKE BOX	EP-170
ROUND CAKE BOX	EP-171
BATON CAKE BOX	EP-172
3 SIZE RECTANGLE EMBOX FOOD CONTAINER SET (350-600-1200 ML)	EP-300
3 SIZE SQUARE EMBOX FOOD CONTAINER SET (400-800-1400 ML)	EP-301
4 PCS EMBOX FOOD CONTAINER SET 400-800-1400-2300 ML	EP-526
550 ML JAR	EP-950

Key Words: No symbol: Accredited, **(*) Symbol**: Not Accredited, **(**) Symbol**: Subcontracted Laboratory, **(***) Symbol**: Subcontracted External Lab. comply with ISO 17025
LOQ – Limit of Quantitation, **UM** – Uncertainty of Measurement, **N/A** – Not Applicable, **ND** – Not Detected or less than LOQ, **MDL:** Method Detection Limit.

Note(s):
1. National Laboratory & Research Centre accredited by IAS (International Accreditation Service) in accordance with the recognized International Standard ISO/IEC17025:2017.
2. IAS is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing reports.
3. NLRC will follow the ILAC G8:2009 Decision Rule, with a Guard Bandwidth of 1 U for the decision of Compliance(If any).
4. The test results in this report relates only to the sample tested. This test report shall not be reproduced except in full, without the written approval of NLRC.
5. Measurement uncertainty provided is based on expanded uncertainty using coverage factor of 2, at 95% confidence level.

~END OF REPORT~

Alaa Fuad Sad
Laboratory Director

FUJAIRAH U.A.E. NATIONAL LABORATORY & RESEARCH CENTER FZE