Test Report No.: 68.431.23.2672.02
Dated: 2023-08-09

Applicant	:	The Dream Farm PTY LTD 9 Amy Street, Albion QLD 4010, Australia
Sample Description	:	Lestrain Small
Product Type/ End use	:	Slotted Spoon
Style No.	:	DF_SLS_A01, DF_SLL_A01, etc
PO No. / Order No.	:	NA
Supplier	:	MMP
Manufacturer	:	MMP
Country of Origin	:	China
Country of Destination	:	Australia, USA, Europe, Japan
Test Sample Receipt Date, Location	:	2023-06-19, 2023-08-03, Shenzhen
Test Period, Location	:	From 2023-06-20 to 2023-08-09, Shenzhen
Test Result(s)	:	Refer to Section 3

Purpose Of Examination / Conclusion:

No.	Test Item(s)	Conclusion
	As specified by client, to test per the selected requirement(s) for the tested item(s) as stated in the German Food & Feed Acts LFGB (§ 30 & 31) and Regulation (EC) No.1935/2004	
1.	**Overall Migration**	Pass
2	**Specific Migration of PAA**	Pass
3	**Specific Migration of PAAs**	Pass
4	**Specific Migration of Heavy Metals**	Pass
5	**Specific Migration of Hexamethylenediamine (HMDA)**	Pass
6	**Peroxide**	Pass
7	**Sensory Test** Test for compliance with German Food and Feed Acts LFGB Section 31 and Regulation (EC) No. 1935/2004 Article 3(1)	Pass
8.	**FDA CFR Title 21 Part 177.1500** Test with reference to the selected requirement(s) in U.S. F.D.A. C.F.R. 21. Part 177.1500 (for nylon resins in contact with food)	See Test Result

Remarks:

(1) The results relate only to the items tested.

(2) Samples are tested as received.

(3) The test item and samples were specified by the client

(4) "Pass" means the measured result is within a limit, even when extended by expanded uncertainty. "Fail" means the measured result is beyond a limit, even when extended by expanded uncertainty. "Inconclusive" means the measured result can be within or beyond a limit when extended by expanded uncertainty. The confidence level of the expended uncertainty for "Pass", "Fail" and "Inconclusive" is 95%.

TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
TÜV SÜD Group

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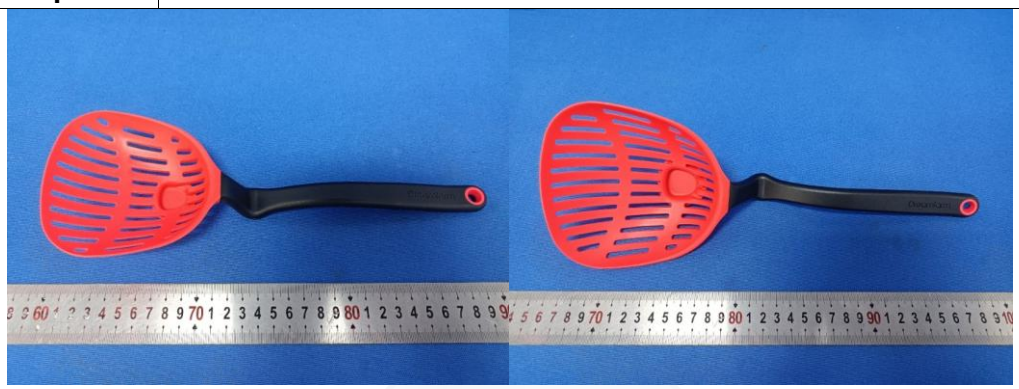
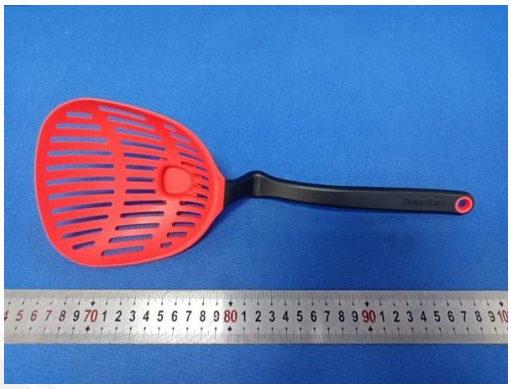
1. Description of the Submitted Sample:

Sample Description	Lestrain Small



2. List of Materials as identified by the Laboratory:

T. No.	Sample No.	Colour and Description	Photograph
T1	001	Red nylon PA66 (Function head)	
T2	002	Whole product (Lestrain small)	

3. Test Result

3.1 Overall Migration

Test method: As specified in Regulation (EU) No. 10/2011 ANNEX III and V,test with reference to:
EN 1186-1:2002(Guide to the selection of conditions and test methods for overall migration)
EN 1186-3:2022 (Test methods for overall migration in evaporable simulants)
[Reporting Limit: 3mg/dm²]

TEST ITEM	TEST CONDITIONS	RESULTS [mg/dm²]			LIMIT [mg/dm²]
		SAMPLE 001 1st Migration	SAMPLE 001 2nd Migration	SAMPLE 001 3rd Migration	
10% Ethanol	100°C for 4 Hours	**17.7**	5.3	4.5	<10
3% Acetic acid	100°C for 4 Hours	**28.5**	**11.5**	7.3	<10
95% Ethanol	60 °C for 6 Hours	8.8	4.1	3.1	<10
Isooctane	60 °C for 4 Hours	ND	ND	ND	<10
Conclusion:		Pass*			--

Note 1. "℃" denotes degree Celsius
2. "<" denotes less than
3. "mg/dm²" denotes milligram per square decimeter
4. "ND" denotes below the Reporting Limit
5. The specification was quoted from Regulation (EU) No. 10/2011 and its amendments
6. "*" denotes the results of second migration should lower than first migration, the result of third migration should lower than second migration.

3.2 Specific Migration of PAA

Test method: with reference to EN 13130-1:2004, follow by Ultraviolet and visible spectrophotometry (UV-Vis).

Test Conditions: 3% Acetic acid: 100 °C for 2 Hours

TEST ITEM	RESULT [mg/kg]			Reporting limit [mg/kg]	LIMIT [mg/kg]
	SAMPLE 001 1st Migration	SAMPLE 001 2nd Migration	SAMPLE 001 3rd Migration		
Primary Aromatic Amine-Trial 1	ND	ND	ND	<0.01	<0.01
Primary Aromatic Amine-Trial 2	ND	ND	ND	<0.01	<0.01
Primary Aromatic Amine-Trial 3	ND	ND	ND	<0.01	<0.01
Conclusion:	Pass	Pass	Pass	--	--

Note 1. "℃" denotes degree Celsius
2. "<" denotes less than
3. "mg/kg" denotes milligram per kilogram
4. "ND" denotes below the Reporting limit
5. The specification was quoted from Regulation (EU) No. 284/2011
6. The sample was received on 2023-08-03

3.3 Specific Migration of PAAs

Test method: with reference to EN 13130-1:2004, follow by Liquid chromatography tandem mass spectrometer (LC-MS/MS). [Reporting Limit:0.002 mg/kg]

Test Conditions: 3% Acetic Acid: 100 °C for 2 Hours

TEST ITEM	RESULTS [mg/kg foodstuff]			LIMIT [mg/kg]
	SAMPLE 001 1st Migration	SAMPLE 001 2nd Migration	SAMPLE 001 3rd Migration	
4-Aminobiphenyl (4-ABP)-Trial 1	ND	ND	ND	<0.002
4-Aminobiphenyl (4-ABP)-Trial 2	ND	ND	ND	<0.002
4-Aminobiphenyl (4-ABP)-Trial 3	ND	ND	ND	<0.002
Aniline (ANL)-Trial 1	ND	ND	ND	<0.002
Aniline (ANL)-Trial 2	ND	ND	ND	<0.002
Aniline (ANL)-Trial 3	ND	ND	ND	<0.002
o-Anisidine (o-ASD)-Trial 1	ND	ND	ND	<0.002
o-Anisidine (o-ASD)-Trial 2	ND	ND	ND	<0.002
o-Anisidine (o-ASD)-Trial 3	ND	ND	ND	<0.002
Benzidine (BNZ)-Trial 1	ND	ND	ND	<0.002
Benzidine (BNZ)-Trial 2	ND	ND	ND	<0.002
Benzidine (BNZ)-Trial 3	ND	ND	ND	<0.002
4-Chloro-Aniline (4-CA)-Trial 1	ND	ND	ND	<0.002
4-Chloro-Aniline (4-CA)-Trial 2	ND	ND	ND	<0.002
4-Chloro-Aniline (4-CA)-Trial 3	ND	ND	ND	<0.002
4-Chloro-o-Toluidine (4-CoT)-Trial 1	ND	ND	ND	<0.002
4-Chloro-o-Toluidine (4-CoT)-Trial 2	ND	ND	ND	<0.002
4-Chloro-o-Toluidine (4-CoT)-Trial 3	ND	ND	ND	<0.002
2,4-Dimethylaniline (2,4-DMA)-Trial 1	ND	ND	ND	<0.002
2,4-Dimethylaniline (2,4-DMA)-Trial 2	ND	ND	ND	<0.002
2,4-Dimethylaniline (2,4-DMA)-Trial 3	ND	ND	ND	<0.002
4,4'-Diaminodiphenylether (4,4'-DPE)-Trial 1	ND	ND	ND	<0.002
4,4'-Diaminodiphenylether (4,4'-DPE)-Trial 2	ND	ND	ND	<0.002
4,4'-Diaminodiphenylether (4,4'-DPE)-Trial 3	ND	ND	ND	<0.002
4,4*-Methylenedianiline (4,4*-MDA)-Trial 1	ND	ND	ND	<0.002
4,4*-Methylenedianiline (4,4*-MDA)-Trial 2	ND	ND	ND	<0.002
4,4*-Methylenedianiline (4,4*-MDA)-Trial 3	ND	ND	ND	<0.002
4,4'-Methylenedi-o-toluidine (4,4'-MDoT)-Trial 1	ND	ND	ND	<0.002
4,4'-Methylenedi-o-toluidine (4,4'-MDoT)-Trial 2	ND	ND	ND	<0.002
4,4'-Methylenedi-o-toluidine (4,4'-MDoT)-Trial 3	ND	ND	ND	<0.002

TEST ITEM	RESULTS [mg/kg foodstuff]			LIMIT [mg/kg]
	SAMPLE 001 1st Migration	SAMPLE 001 2nd Migration	SAMPLE 001 3rd Migration	
2-Methoxy-5-Methylaniline (2-M-5-MA)-Trial 1	ND	ND	ND	<0.002
2-Methoxy-5-Methylaniline (2-M-5-MA)-Trial 2	ND	ND	ND	<0.002
2-Methoxy-5-Methylaniline (2-M-5-MA)-Trial 3	ND	ND	ND	<0.002
m-Phenylenediamine (m-PDA)-Trial 1	ND	ND	ND	<0.002
m-Phenylenediamine (m-PDA)-Trial 2	ND	ND	ND	<0.002
m-Phenylenediamine (m-PDA)-Trial 3	ND	ND	ND	<0.002
4-Methoxy-mphenylenediamine (4-M-mPDA)-Trial 1	ND	ND	ND	<0.002
4-Methoxy-mphenylenediamine (4-M-mPDA)-Trial 2	ND	ND	ND	<0.002
4-Methoxy-mphenylenediamine (4-M-mPDA)-Trial 3	ND	ND	ND	<0.002
o-Toluidine (o-T)-Trial 1	ND	ND	ND	<0.002
o-Toluidine (o-T)-Trial 2	ND	ND	ND	<0.002
o-Toluidine (o-T)-Trial 3	ND	ND	ND	<0.002
2,4-Toluenediamine (2,4-TDA)-Trial 1	ND	ND	ND	<0.002
2,4-Toluenediamine (2,4-TDA)-Trial 2	ND	ND	ND	<0.002
2,4-Toluenediamine (2,4-TDA)-Trial 3	ND	ND	ND	<0.002
3,3-Dimethylbenzidine (3,3-DMB)-Trial 1	ND	ND	ND	<0.002
3,3-Dimethylbenzidine (3,3-DMB)-Trial 2	ND	ND	ND	<0.002
3,3-Dimethylbenzidine (3,3-DMB)-Trial 3	ND	ND	ND	<0.002
2,4,5-Trimethylaniline (2,4,5-TMA)-Trial 1	ND	ND	ND	<0.002
2,4,5-Trimethylaniline (2,4,5-TMA)-Trial 2	ND	ND	ND	<0.002
2,4,5-Trimethylaniline (2,4,5-TMA)-Trial 3	ND	ND	ND	<0.002
2,6-Toluenediamine (2,6-TDA)-Trial 1	ND	ND	ND	<0.002
2,6-Toluenediamine (2,6-TDA)-Trial 2	ND	ND	ND	<0.002
2,6-Toluenediamine (2,6-TDA)-Trial 3	ND	ND	ND	<0.002
2,6-Dimethylaniline (2,6-DMA)-Trial 1	ND	ND	ND	<0.002
2,6-Dimethylaniline (2,6-DMA)-Trial 2	ND	ND	ND	<0.002
2,6-Dimethylaniline (2,6-DMA)-Trial 3	ND	ND	ND	<0.002
p-Phenylenediamine (p-PDA)-Trial 1	ND	ND	ND	<0.002
p-Phenylenediamine (p-PDA)-Trial 2	ND	ND	ND	<0.002
p-Phenylenediamine (p-PDA)-Trial 3	ND	ND	ND	<0.002
1,5-Diaminenaphthalene (1,5-DAN)-Trial 1	ND	ND	ND	<0.002
1,5-Diaminenaphthalene (1,5-DAN)-Trial 2	ND	ND	ND	<0.002
1,5-Diaminenaphthalene (1,5-DAN)-Trial 3	ND	ND	ND	<0.002

TEST ITEM	RESULTS [mg/kg foodstuff]			LIMIT [mg/kg]
	SAMPLE 001 1st Migration	SAMPLE 001 2nd Migration	SAMPLE 001 3rd Migration	
2-naphthylamine-Trial 1	ND	ND	ND	<0.002
2-naphthylamine-Trial 2	ND	ND	ND	<0.002
2-naphthylamine-Trial 3	ND	ND	ND	<0.002
o-aminoazotoluene-Trial 1	ND	ND	ND	<0.002
o-aminoazotoluene-Trial 2	ND	ND	ND	<0.002
o-aminoazotoluene-Trial 3	ND	ND	ND	<0.002
5-nitro-o-toluidine-Trial 1	ND	ND	ND	<0.002
5-nitro-o-toluidine-Trial 2	ND	ND	ND	<0.002
5-nitro-o-toluidine-Trial 3	ND	ND	ND	<0.002
3,3'-dichlorobenzidine-Trial 1	ND	ND	ND	<0.002
3,3'-dichlorobenzidine-Trial 2	ND	ND	ND	<0.002
3,3'-dichlorobenzidine-Trial 3	ND	ND	ND	<0.002
3,3'-dimethoxybenzidine-Trial 1	ND	ND	ND	<0.002
3,3'-dimethoxybenzidine-Trial 2	ND	ND	ND	<0.002
3,3'-dimethoxybenzidine-Trial 3	ND	ND	ND	<0.002
4,4'-methylene-bis-(2-chloro-aniline)-Trial 1	ND	ND	ND	<0.002
4,4'-methylene-bis-(2-chloro-aniline)-Trial 2	ND	ND	ND	<0.002
4,4'-methylene-bis-(2-chloro-aniline)-Trial 3	ND	ND	ND	<0.002
4,4'-thiodianline-Trial 1	ND	ND	ND	<0.002
4,4'-thiodianline-Trial 2	ND	ND	ND	<0.002
4,4'-thiodianline-Trial 3	ND	ND	ND	<0.002
4-amino azobenzene-Trial 1	ND	ND	ND	<0.002
4-amino azobenzene-Trial 2	ND	ND	ND	<0.002
4-amino azobenzene-Trial 3	ND	ND	ND	<0.002
Conclusion:	Pass	Pass	Pass	--

Note 1. "℃" denotes degree Celsius
2. "<" denotes less than
3. "mg/kg" denotes milligram per kilogram
4. "ND" denotes below the Reporting Limit
5. The specification was quoted from Regulation (EU) No. 284/2011
6. The sample was received on 2023-08-03

3.4 Specific Migration of Heavy Metals

Test method: with reference to EN 13130-1:2004, follow by Inductively Coupled Plasma Mass Spectrometry (ICP-MS).

Test Conditions: 3% Acetic Acid: 100 °C for 2 Hours

TEST ITEM	RESULT [mg/kg foodstuff]			Reporting limit [mg/kg]	LIMIT [mg/kg]
	SAMPLE 001 1st Migration	SAMPLE 001 2nd Migration	SAMPLE 001 3rd Migration		
Aluminium (Al)	ND	ND	ND	<0.1	<1
Antimony (Sb)	ND	ND	ND	<0.01	<0.04
Arsenic (As)	ND	ND	ND	<0.01	<0.01
Barium (Ba)	ND	ND	ND	<0.1	<1
Cadmium (Cd)	ND	ND	ND	<0.002	<0.002
Chromium (Cr)	ND	ND	ND	<0.01	<0.01
Cobalt (Co)	ND	ND	ND	<0.05	<0.05
Copper (Cu)	ND	ND	ND	<0.5	<5
Iron (Fe)	ND	ND	ND	<1.0	<48
Lead (Pb)	ND	ND	ND	<0.01	<0.01
Lithium (Li)	ND	ND	ND	<0.1	<0.6
Manganese (Mn)	ND	ND	ND	<0.05	<0.6
Mercury (Hg)	ND	ND	ND	<0.01	<0.01
Nickel (Ni)	ND	ND	ND	<0.01	<0.02
Zinc (Zn)	ND	ND	ND	<1.0	<5
Sum of Eu, Gd, La, Tb	ND	ND	ND	<0.04	<0.05
Conclusion:	Pass*			--	--

Note 1. "℃" denotes degree Celsius
2. "<" denotes less than
3. "mg/kg" denotes milligram per kilogram
4. "ND" denotes below the Reporting limit
5. The specification was quoted from Regulation (EU) No. 10/2011 and its amendments
6. "*" denotes the results of second migration should lower than first migration, the result of third migration should lower than second migration.

3.5 Specific Migration of Hexamethylenediamine (HMDA)

Test method: with reference to EN 13130-1 and CEN/TS 13130-21, follow by Gas Chromatography Mass Spectrometry (GC-MS).

Test Conditions: 3% Acetic Acid: 100 °C for 2 Hours

TEST ITEM	RESULT [mg/kg foodstuff]			Reporting limit [mg/kg]	LIMIT [mg/kg]
	SAMPLE 001 1st Migration	SAMPLE 001 2nd Migration	SAMPLE 001 3rd Migration		
Hexamethylenediamine	ND	ND	ND	<0.2	2.4
Conclusion:	Pass*			--	--

Note 1. "℃" denotes degree Celsius
2. "<" denotes less than
3. "mg/kg" denotes milligram per kilogram
4. "ND" denotes below the Reporting limit
5. The specification was quoted from Regulation (EU) No. 10/2011 and its amendments
6. "*" denotes the results of second migration should lower than first migration, the result of third migration should lower than second migration.

3.6 Peroxide

Test method : With reference to 58th Communication on the testing of plastics, Bundesgesundheitsbl. 40 (1997) 412.

TEST ITEM	RESULTS	MAXIMUM PERMISSIBLE LIMIT
	SAMPLE 001	
Peroxide Value	Absent	Absent
Conclusion	Pass	-

Note:
- The specification was quoted from Recommendation of the BfR "Kunststoffe im Lebensmittelverkehr Part X.

3.7 Sensory Test

Test for compliance with German Food and Feed Acts LFGB Section 31 and Regulation (EC) No. 1935/2004 Article 3(1)
Test method: With reference to DIN 10955:2004.
The submitted sample was treated with below test conditions. After this treatment, treated food simulant was examined by panels with regard to any divergence in smell and taste.

Test Item	**Test Conditions**	**Grade Results**	**Recommend Level**
		Sample 002	
Transfer of smell	Distilled water: 100°C for 2 Hours	1	≤ 2.5
Transfer of taste	Distilled water: 100°C for 2 Hours	1	≤ 2.5
Conclusion		Pass	-

Note:

- Explanation for grading are listed as below:
  - Grade 0 : No perceptible taste/smell deviation
  - Grade 1 : Just perceptible taste/smell deviation
  - Grade 2 : Weak taste/smell deviation
  - Grade 3 : Clear taste/smell deviation
  - Grade 4 : Strong taste/smell deviation

3.8 FDA CFR Title 21 Part 177.1500

Test with reference to the selected requirement(s) in U.S. F.D.A. C.F.R. 21. Part 177.1500 (for nylon resins in contact with food)

TEST ITEMS	RESULTS
	SAMPLE 001
Specific Gravity[g/mL]	1.2270
Melting Point Range [ºF]	489-493
Solubility in boiling 4.2N HCl	Dissolves in 1 hour
Maximum extractive in Distilled Water under reflux for 8 hours[%]	0.43
Maximum extractive in 95% ethanol under reflux for 8 hours[%]	0.37
Maximum extractive in Ethyl Acetate under reflux for 8 hours[%]	<0.05
Maximum extractive in Benzene under reflux for 8 hours[%]	<0.05

Note:
1. "g/mL" denotes gram per milliliter
2. "%" denotes percent by weight
3. "<" denotes less than
4. "ºF" denotes degree Fahrenheit

-- END OF TEST REPORT--