



# Test Report

**Applicant:** Shantou Nanbeixiang Plastic Products Co., Ltd  
**Address:** No.294 Shanzhang Road, Jinping District, Shantou City, Guangdong Province, China(Mainland)  
**Manufacturer:** Shantou Nanbeixiang Plastic Products Co., Ltd  
**Address:** No.294 Shanzhang Road, Jinping District, Shantou City, Guangdong Province, China(Mainland)  
**Report on the submitted samples said to be:**  
**Product Name:** Lunch box  
**Trade Mark:** N/A  
**Model Number:** N929, N929-1, N939, N939-1, N940, N937  
**Date of Receipt:** Jan. 13, 2026  
**Date of Test:** Jan. 13, 2026~ Jan. 21, 2026  
**Date of Report:** Jan. 27, 2026  
**Test Method:** Please refer to next page.  
**Test Result:** Please refer to next page.

**Prepared (Engineer):** Canly Chen

**Reviewer (Supervisor):** Slien Wang



*This test report is based on a single evaluation of one sample of above mentioned products. It is not permitted to be duplicated in extracts without written approval of Shenzhen DL Testing Technology Co., Ltd*

**Version**

Version No.	Date	Description
00	Jan. 27, 2026	Original

**Test Requested:****Conclusion**

German Food, Articles of Daily Use and Feed Code of September 1, 2005 (LFGB) Section 30 and 31 With amendments, Regulation 1935/2004/EC on materials and articles intended to come into contact with food; European Commission Regulation (EU) No.10/2011 and Its amendments (EU) 2025/351; European Commission Regulation AP(89)1;European Commission Regulation AP(2004)5; European Commission Regulation CM/Res(2013)9 and CM/Res(2020)9; European Commission Regulation (EU)2018/213 and (EU)2024/3190.

1.Sensory test-taste and odour to the integrate product	Pass
2.Visible Color Migration	Pass
3.Overall Migration Test	Pass
4.Polycyclic Aromatic Hydrocarbons (PAHs)	Pass
5.Volatile Organic Matter (VOM)	Pass
6.Specific Migration of Polycyclic Aromatic Hydrocarbons (PAHs)	Pass
7.Total Lead (Pb)、Cadmium (Cd)、Zinc (Zn)、Platinum(Pt)	Pass
8.Peroxides Value	Pass
9.Extractive Substance	Pass
10.Organic Tin content	Pass
11.Total BPA content	Pass
12.Specific Migration of Primary aromatic amines (PAA)	Pass
13.Specific Migration of Heavy Metals	Pass
14.Extractable heavy metals (24 heavy metals)	Pass

**Test Part Description:**

<b>Specimen No.</b>	<b>Description</b>	<b>Material</b>
01	Pink plastic	plastic
02	Green plastic	plastic
03	Deep gray-green plastic	plastic
04	Bean green plastic	plastic
05	White plastic	plastic
06	Light brown plastic	plastic
07	Light khaki plastic	plastic
08	Light purple plastic	plastic
09	Light blue plastic	plastic
10	Transparent plastic	plastic
11	Yellow-green plastic	plastic
12	Deep green plastic	plastic
13	Peach pink plastic	plastic
14	Deep peach pink plastic	plastic
15	Blue-black plastic	plastic
16	Brown plastic	plastic
17	Deep brown plastic	plastic
18	Brick red plastic	plastic
19	Grayish blue plastic	plastic
20	Deep blue plastic	plastic
21	Beige plastic	plastic
22	Deep cyan-gray plastic	plastic
23	Blue plastic	plastic
24	Khaki plastic	plastic
25	Deep grayish purple plastic	plastic
26	Gray transparent plastic	plastic



27	Deep gray-blue silicone	silicone
28	Translucent silicone gasket	silicone
29	White silicone gasket	silicone
30	White fabric	fabric
31	Silver metal	metal

**Note:** All the same materials mentioned in this report are composed of the same components.

Therefore, in this test, they were randomly selected for testing. Please note.

## Test Results:

### 1.Sensory test-taste and odour to the integrate product

Test Method: With reference to Robinson's test with reference to DIN 10955:2004.

Test conditions: Distilled water, 100°C, 2h

Test Item	01	02	03	04	05	06	Limit
Sensorial examination odour (Point scale)	0	0	0	0	0	0	2.5
Sensorial examination taste (Point scale)	0	0	0	0	0	0	2.5
Test Item	07	08	09	10	11	12	Limit
Sensorial examination odour (Point scale)	0	0	0	0	0	0	2.5
Sensorial examination taste (Point scale)	0	0	0	0	0	0	2.5
Test Item	13	14	15	16	17	18	Limit
Sensorial examination odour (Point scale)	0	0	0	0	0	0	2.5
Sensorial examination taste (Point scale)	0	0	0	0	0	0	2.5
Test Item	19	20	21	22	23	24	Limit
Sensorial examination odour (Point scale)	0	0	0	0	0	0	2.5
Sensorial examination taste (Point scale)	0	0	0	0	0	0	2.5



Test Item	25	26	27	28	29	30	31	Limit
Sensorial examination odour (Point scale)	0	0	1	1	1	0	0	2.5
Sensorial examination taste (Point scale)	0	0	1	1	1	0	0	2.5

**Scale evaluation:**

Intensity scale (rounded at 0.5):

- 0: No perceptible difference
- 1: Just perceptible difference
- 2: Slight difference
- 3: Marked difference
- 4: Strong difference

**2.Visible Color migration**

Test Method:Test with reference to AP(89)1;Evaluation reference EN20105-A03.

Simulant Used	Test condition	01	02	03	04	05	06	Limit
Distilled water	50°C,5h	5	5	5	5	5	5	>4.5
3% Acetic acid	50°C,5h	5	5	5	5	5	5	>4.5
15% Ethanol	50°C,5h	5	5	5	5	5	5	>4.5
Olive oil	50°C,5h	5	5	5	5	5	5	>4.5

Simulant Used	Test condition	07	08	09	10	11	12	Limit
Distilled water	50°C,5h	5	5	5	5	5	5	>4.5
3% Acetic acid	50°C,5h	5	5	5	5	5	5	>4.5
15% Ethanol	50°C,5h	5	5	5	5	5	5	>4.5
Olive oil	50°C,5h	5	5	5	5	5	5	>4.5

Simulant Used	Test condition	13	14	15	16	17	18	Limit
Distilled water	50°C,5h	5	5	5	5	5	5	>4.5
3% Acetic acid	50°C,5h	5	5	5	5	5	5	>4.5
15% Ethanol	50°C,5h	5	5	5	5	5	5	>4.5
Olive oil	50°C,5h	5	5	5	5	5	5	>4.5



Simulant Used	Test condition	19	20	21	22	23	24	Limit
Distilled water	50°C,5h	5	5	5	5	5	5	>4.5
3% Acetic acid	50°C,5h	5	5	5	5	5	5	>4.5
15% Ethanol	50°C,5h	5	5	5	5	5	5	>4.5
Olive oil	50°C,5h	5	5	5	5	5	5	>4.5

Simulant Used	Test condition	25	26	27	28	29	30	Limit
Distilled water	50°C,5h	5	5	5	5	5	5	>4.5
3% Acetic acid	50°C,5h	5	5	5	5	5	5	>4.5
15% Ethanol	50°C,5h	5	5	5	5	5	5	>4.5
Olive oil	50°C,5h	5	5	5	5	5	5	>4.5

**Scale evaluation:**

- 1: Severe migration
- 2: High migration
- 3: Medium migration
- 4: Low migration
- 5: No migration

**3.Overall Migration Test**

Test Method: With reference to EN 1186-1: 2002 and EN 1186-3: 2022.

Simulant Used	Time	Temperature	Unit	Limit	01			02		
					1st	2nd	3rd	1st	2nd	3rd
3% Acetic acid	2.0h	70°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
10% Ethanol	2.0h	70°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
20% Ethanol	2.0h	70°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
95% Ethanol	2.0h	60°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
Isooctane	0.5h	40°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND

Simulant Used	Time	Temperature	Unit	Limit	03			04		
					1st	2nd	3rd	1st	2nd	3rd
3% Acetic acid	2.0h	70°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
10% Ethanol	2.0h	70°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND



20% Ethanol	2.0h	70°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
95% Ethanol	2.0h	60°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
Isooctane	0.5h	40°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND

Simulant Used	Time	Temperature	Unit	Limit	05			06		
					1st	2nd	3rd	1st	2nd	3rd
3% Acetic acid	2.0h	70°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
10% Ethanol	2.0h	70°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
20% Ethanol	2.0h	70°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
95% Ethanol	2.0h	60°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
Isooctane	0.5h	40°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND

Simulant Used	Time	Temperature	Unit	Limit	07			08		
					1st	2nd	3rd	1st	2nd	3rd
3% Acetic acid	2.0h	70°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
10% Ethanol	2.0h	70°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
20% Ethanol	2.0h	70°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
95% Ethanol	2.0h	60°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
Isooctane	0.5h	40°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND

Simulant Used	Time	Temperature	Unit	Limit	09			10		
					1st	2nd	3rd	1st	2nd	3rd
3% Acetic acid	2.0h	70°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
10% Ethanol	2.0h	70°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
20% Ethanol	2.0h	70°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
95% Ethanol	2.0h	60°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
Isooctane	0.5h	40°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND

Simulant Used	Time	Temperature	Unit	Limit	11			12		
					1st	2nd	3rd	1st	2nd	3rd
3% Acetic acid	2.0h	70°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND



10% Ethanol	2.0h	70°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
20% Ethanol	2.0h	70°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
95% Ethanol	2.0h	60°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
Isooctane	0.5h	40°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND

**13**

**14**

Simulant Used	Time	Temperature	Unit	Limit						
					1st	2nd	3rd	1st	2nd	3rd
3% Acetic acid	2.0h	70°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
10% Ethanol	2.0h	70°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
20% Ethanol	2.0h	70°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
95% Ethanol	2.0h	60°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
Isooctane	0.5h	40°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND

**15**

**16**

Simulant Used	Time	Temperature	Unit	Limit						
					1st	2nd	3rd	1st	2nd	3rd
3% Acetic acid	2.0h	70°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
10% Ethanol	2.0h	70°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
20% Ethanol	2.0h	70°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
95% Ethanol	2.0h	60°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
Isooctane	0.5h	40°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND

**17**

**18**

Simulant Used	Time	Temperature	Unit	Limit						
					1st	2nd	3rd	1st	2nd	3rd
3% Acetic acid	2.0h	70°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
10% Ethanol	2.0h	70°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
20% Ethanol	2.0h	70°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
95% Ethanol	2.0h	60°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
Isooctane	0.5h	40°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND



Simulant Used	Time	Temperature	Unit	Limit	19			20		
					1st	2nd	3rd	1st	2nd	3rd
3% Acetic acid	2.0h	70℃	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
10% Ethanol	2.0h	70℃	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
20% Ethanol	2.0h	70℃	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
95% Ethanol	2.0h	60℃	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
Isooctane	0.5h	40℃	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND

Simulant Used	Time	Temperature	Unit	Limit	21			22		
					1st	2nd	3rd	1st	2nd	3rd
3% Acetic acid	2.0h	70℃	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
10% Ethanol	2.0h	70℃	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
20% Ethanol	2.0h	70℃	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
95% Ethanol	2.0h	60℃	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
Isooctane	0.5h	40℃	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND

Simulant Used	Time	Temperature	Unit	Limit	23			24		
					1st	2nd	3rd	1st	2nd	3rd
3% Acetic acid	2.0h	70℃	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
10% Ethanol	2.0h	70℃	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
20% Ethanol	2.0h	70℃	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
95% Ethanol	2.0h	60℃	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
Isooctane	0.5h	40℃	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND

Simulant Used	Time	Temperature	Unit	Limit	25			26		
					1st	2nd	3rd	1st	2nd	3rd
3% Acetic acid	2.0h	70℃	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
10% Ethanol	2.0h	70℃	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
20% Ethanol	2.0h	70℃	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
95% Ethanol	2.0h	60℃	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
Isooctane	0.5h	40℃	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND



Simulant Used	Time	Temperature	Unit	Limit	27			28		
					1st	2nd	3rd	1st	2nd	3rd
3% Acetic acid	2.0h	70°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
10% Ethanol	2.0h	70°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
20% Ethanol	2.0h	70°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
95% Ethanol	2.0h	60°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
Isooctane	0.5h	40°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND

Simulant Used	Time	Temperature	Unit	Limit	29			30		
					1st	2nd	3rd	1st	2nd	3rd
3% Acetic acid	2.0h	70°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
10% Ethanol	2.0h	70°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
20% Ethanol	2.0h	70°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
95% Ethanol	2.0h	60°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND
Isooctane	0.5h	40°C	mg/dm <sup>2</sup>	10	ND	ND	ND	ND	ND	ND

Simulant Used	Time	Temperature	Unit	Limit	31		
					1st	2nd	3rd
3% Acetic acid	4.0h	100°C	mg/dm <sup>2</sup>	10	ND	ND	ND
10% Ethanol	4.0h	100°C	mg/dm <sup>2</sup>	10	ND	ND	ND
20% Ethanol	4.0h	100°C	mg/dm <sup>2</sup>	10	ND	ND	ND
95% Ethanol	6.0h	60°C	mg/dm <sup>2</sup>	10	ND	ND	ND
Isooctane	4.0h	60°C	mg/dm <sup>2</sup>	10	ND	ND	ND

Note:

- (1) mg/dm<sup>2</sup> = milligram per square decimeter;
- (2) < =less than;
- (3) ND = Not Detected (<Limit).



#### 4.Polycyclic Aromatic Hydrocarbons (PAHs)

Test Method: With reference to AfPS GS 2019:01 PAK, by solvent extraction and analysis was performed by gas chromatographic-mass spectrometer (GC-MS).

Item	Unit	MDL	01	02	03	04	05	06	Limit
Naphthalene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Phenanthrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[a]anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Chrysene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[b]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[k]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[a]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Indeno[1,2,3-cd]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Dibenzo[a,h]anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[g,h,i]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[j]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[e]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Total of 15 PAHs	mg/kg	/	ND	ND	ND	ND	ND	ND	/

Item	Unit	MDL	07	08	09	10	11	12	Limit
Naphthalene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Phenanthrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[a]anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Chrysene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent



Benzo[b]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[k]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[a]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Indeno[1,2,3-cd]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Dibenzo[a,h]anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[g,h,i]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[j]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[e]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Total of 15 PAHs	mg/kg	/	ND	ND	ND	ND	ND	ND	/

Item	Unit	MDL	13	14	15	16	17	18	Limit
Naphthalene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Phenanthrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[a]anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Chrysene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[b]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[k]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[a]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Indeno[1,2,3-cd]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Dibenzo[a,h]anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[g,h,i]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[j]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[e]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Total of 15 PAHs	mg/kg	/	ND	ND	ND	ND	ND	ND	/



Item	Unit	MDL	19	20	21	22	23	24	Limit
Naphthalene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Phenanthrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[a]anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Chrysene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[b]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[k]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[a]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Indeno[1,2,3-cd]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Dibenzo[a,h]anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[g,h,i]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[j]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[e]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Total of 15 PAHs	mg/kg	/	ND	ND	ND	ND	ND	ND	/

Item	Unit	MDL	25	26	27	28	29	30	Limit
Naphthalene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Phenanthrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[a]anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Chrysene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[b]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[k]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[a]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent



Indeno[1,2,3-cd]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Dibenzo[a,h]anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[g,h,i]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[j]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[e]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Total of 15 PAHs	mg/kg	/	ND	ND	ND	ND	ND	ND	/

Note:

- (1) 1mg/kg=0.0001%;
- (2) < =less than;
- (3) ND = Not Detected (<MDL);
- (4) MDL= Method Detection Limit.

**5.VOM-BfR Besummung von fluchtigen Verbindungen in Bedarfsgegenständen aus silicone Version2 Stand: 09/2023**

Test Method: With reference to 19. Mitteilung über die Untersuchung von Kunststoffen. Bundesgesundheitsblatt 14(1971)265

Test condition	MDL (%)	Limit (%)	27	28	29
200°C, 4h	0.1	0.5	0.3	0.2	0.3

Note:

- (1) 1mg/kg=0.0001%;
- (2) < =less than;
- (3) ND = Not Detected (<MDL);
- (4) MDL= Method Detection Limit.

**6.Specific Migration of Polycyclic Aromatic Hydrocarbons (PAHs)**

Test Method: With reference to BS EN 13130-1: 2004, determined by GC-MS. Test conditions: 3% acetic acid, 70°C, 2h

Item	Unit	MDL	01			02			Limit
			1st	2nd	3rd	1st	2nd	3rd	
Naphthalene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Phenanthrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent



Pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[a]anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Chrysene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[b]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[k]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[a]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Indeno[1,2,3-cd]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Dibenzo[a,h]anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[g,h,i]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[j]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[e]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Total of 15 PAHs	mg/kg	/	ND	ND	ND	ND	ND	ND	/

Item	Unit	MDL	03			04			Limit
			1st	2nd	3rd	1st	2nd	3rd	
Naphthalene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Phenanthrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[a]anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Chrysene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[b]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[k]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[a]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Indeno[1,2,3-cd]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Dibenzo[a,h]anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[g,h,i]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[j]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent



Benzo[e]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Total of 15 PAHs	mg/kg	/	ND	ND	ND	ND	ND	ND	/

Item	Unit	MDL	05			06			Limit
			1st	2nd	3rd	1st	2nd	3rd	
Naphthalene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Phenanthrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[a]anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Chrysene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[b]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[k]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[a]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Indeno[1,2,3-cd]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Dibenzo[a,h]anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[g,h,i]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[j]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[e]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Total of 15 PAHs	mg/kg	/	ND	ND	ND	ND	ND	ND	/

Item	Unit	MDL	07			08			Limit
			1st	2nd	3rd	1st	2nd	3rd	
Naphthalene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Phenanthrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[a]anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Chrysene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent



Benzo[b]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[k]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[a]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Indeno[1,2,3-cd]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Dibenzo[a,h]anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[g,h,i]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[j]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[e]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Total of 15 PAHs	mg/kg	/	ND	ND	ND	ND	ND	ND	/

Item	Unit	MDL	09			10			Limit
			1st	2nd	3rd	1st	2nd	3rd	
Naphthalene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Phenanthrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[a]anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Chrysene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[b]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[k]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[a]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Indeno[1,2,3-cd]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Dibenzo[a,h]anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[g,h,i]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[j]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[e]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Total of 15 PAHs	mg/kg	/	ND	ND	ND	ND	ND	ND	/



Item	Unit	MDL	11			12			Limit
			1st	2nd	3rd	1st	2nd	3rd	
Naphthalene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Phenanthrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[a]anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Chrysene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[b]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[k]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[a]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Indeno[1,2,3-cd]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Dibenzo[a,h]anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[g,h,i]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[j]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[e]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Total of 15 PAHs	mg/kg	/	ND	ND	ND	ND	ND	ND	/

Item	Unit	MDL	13			14			Limit
			1st	2nd	3rd	1st	2nd	3rd	
Naphthalene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Phenanthrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[a]anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Chrysene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[b]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[k]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent



Benzo[a]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Indeno[1,2,3-cd]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Dibenzo[a,h]anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[g,h,i]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[j]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[e]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Total of 15 PAHs	mg/kg	/	ND	ND	ND	ND	ND	ND	/

Item	Unit	MDL	15			16			Limit
			1st	2nd	3rd	1st	2nd	3rd	
Naphthalene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Phenanthrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[a]anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Chrysene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[b]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[k]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[a]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Indeno[1,2,3-cd]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Dibenzo[a,h]anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[g,h,i]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[j]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[e]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Total of 15 PAHs	mg/kg	/	ND	ND	ND	ND	ND	ND	/

Item	Unit	MDL	17			18			Limit
			1st	2nd	3rd	1st	2nd	3rd	
Naphthalene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Phenanthrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent



Anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[a]anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Chrysene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[b]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[k]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[a]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Indeno[1,2,3-cd]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Dibenzo[a,h]anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[g,h,i]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[j]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[e]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Total of 15 PAHs	mg/kg	/	ND	ND	ND	ND	ND	ND	/

Item	Unit	MDL	19			20			Limit
			1st	2nd	3rd	1st	2nd	3rd	
Naphthalene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Phenanthrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[a]anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Chrysene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[b]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[k]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[a]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Indeno[1,2,3-cd]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Dibenzo[a,h]anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[g,h,i]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent



Benzo[j]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[e]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Total of 15 PAHs	mg/kg	/	ND	ND	ND	ND	ND	ND	/

Item	Unit	MDL	21			22			Limit
			1st	2nd	3rd	1st	2nd	3rd	
Naphthalene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Phenanthrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[a]anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Chrysene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[b]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[k]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[a]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Indeno[1,2,3-cd]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Dibenzo[a,h]anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[g,h,i]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[j]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[e]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Total of 15 PAHs	mg/kg	/	ND	ND	ND	ND	ND	ND	/

Item	Unit	MDL	23			24			Limit
			1st	2nd	3rd	1st	2nd	3rd	
Naphthalene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Phenanthrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[a]anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent



Chrysene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[b]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[k]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[a]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Indeno[1,2,3-cd]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Dibenzo[a,h]anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[g,h,i]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[j]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[e]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Total of 15 PAHs	mg/kg	/	ND	ND	ND	ND	ND	ND	/

Item	Unit	MDL	25			26			Limit
			1st	2nd	3rd	1st	2nd	3rd	
Naphthalene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Phenanthrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[a]anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Chrysene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[b]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[k]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[a]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Indeno[1,2,3-cd]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Dibenzo[a,h]anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[g,h,i]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[j]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[e]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Total of 15 PAHs	mg/kg	/	ND	ND	ND	ND	ND	ND	/



Item	Unit	MDL	27			28			Limit
			1st	2nd	3rd	1st	2nd	3rd	
Naphthalene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Phenanthrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[a]anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Chrysene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[b]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[k]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[a]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Indeno[1,2,3-cd]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Dibenzo[a,h]anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[g,h,i]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[j]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[e]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Total of 15 PAHs	mg/kg	/	ND	ND	ND	ND	ND	ND	/

Item	Unit	MDL	29			30			Limit
			1st	2nd	3rd	1st	2nd	3rd	
Naphthalene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Phenanthrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[a]anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Chrysene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[b]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[k]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent



Benzo[a]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Indeno[1,2,3-cd]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Dibenzo[a,h]anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[g,h,i]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[j]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Benzo[e]pyrene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Total of 15 PAHs	mg/kg	/	ND	ND	ND	ND	ND	ND	/

Note:

(1)1mg/kg=0.0001%;

(2)ND = Not Detected (<MDL);

(3)MDL= Method Detection Limit.

## 7.Total Lead (Pb)、Cadmium (Cd)、Zinc (Zn)、Platinum(Pt)

Test Method:With reference to EPA METHOD 3052:1996, analyzed by ICP-OES.

Test Item	Unit	MDL	Limit	27	28	29
Lead (Pb)	mg/kg	5	100	ND	ND	ND
Cadmium (Cd)	mg/kg	5	100	ND	ND	ND
Zinc (Zn)	mg/kg	5	100	ND	ND	ND
Platinum(Pt)	mg/kg	5	50	ND	ND	ND

Note:

(1)1mg/kg=0.0001%;

(2)ND = Not Detected (<MDL);

(3)MDL= Method Detection Limit.

## 8.Peroxides Value

Test Method:With reference to European Pharmacopeia, Ph.Eur.Method 2.5.5

Test Item	Limit	27	28	29	Conclusion
Peroxides value	Absent	Absent	Absent	Absent	PASS



## 9.Extractive Substance

Test Method:The test was performed according to the 61st Communication on testing of plastics  
Bundesgesundheitsbl.46(2003)362

Simulant Used	Test duration /Temperature	Unit	Limit	27	28	29
Distilled water	Reflux for 5 hours	%	0.5	<0.1	<0.1	<0.1
3% Acetic acid	Reflux for 5 hours	%	0.5	<0.1	<0.1	<0.1
10% Ethanol	Reflux for 5 hours	%	0.5	<0.1	<0.1	<0.1

Note:

- (1) 1mg/kg=0.0001%;
- (2) < =less than.

## 10.Organic Tin content

Test method :With reference to ISO 17353 :2004, analysis was performed by GC-MS.

Test Item	Unit	MDL	Limit	27	28	29
Dibutyltin ( DBT )	mg/kg	0.01	1	ND	ND	ND
Tributyltin ( TBT )	mg/kg	0.01	1	ND	ND	ND
Triphenyltin ( TPT )	mg/kg	0.01	1	ND	ND	ND
Diocetyltn ( DOT )	mg/kg	0.01	1	ND	ND	ND
Monobutyltin (MBT)	mg/kg	0.01	1	ND	ND	ND
Monooctyltin (MOT)	mg/kg	0.01	1	ND	ND	ND
Tetrabutyltin (TTBT)	mg/kg	0.01	1	ND	ND	ND

Note:

- (1) 1mg/kg=0.0001%;
- (2) ND = Not Detected (<MDL);
- (3) MDL= Method Detection Limit.

## 11.Total BPA content

Test Method: With reference to EN 14350-2, determined by LC-MS.

Test Item	Unit	MDL	Limit	01	02	03	04	05	06
Bisphenol A	mg/kg	0.1	Absent	ND	ND	ND	ND	ND	ND



Test Item	Unit	MDL	Limit	07	08	09	10	11	12
Bisphenol A	mg/kg	0.1	Absent	ND	ND	ND	ND	ND	ND

Test Item	Unit	MDL	Limit	13	14	15	16	17	18
Bisphenol A	mg/kg	0.1	Absent	ND	ND	ND	ND	ND	ND

Test Item	Unit	MDL	Limit	19	20	21	22	23	24
Bisphenol A	mg/kg	0.1	Absent	ND	ND	ND	ND	ND	ND

Test Item	Unit	MDL	Limit	25	26	27	28	29	30
Bisphenol A	mg/kg	0.1	Absent	ND	ND	ND	ND	ND	ND

Note:

- (1) 1mg/kg=0.0001%;
- (2) ND = Not Detected (<MDL);
- (3) MDL= Method Detection Limit.

## 12. Specific Migration of Primary aromatic amines (PAA)

Test Method: With reference to BS EN 13130-1: 2004, determined by GC-MS.

Test conditions: 3% acetic acid, 70 °C, 2h

Test Item	MDL (mg/kg)	Limit (mg/kg)	01			02		
			1st	2nd	3rd	1st	2nd	3rd
4-Aminobiphenyl	0.002	ND	ND	ND	ND	ND	ND	ND
Benzidine	0.002	ND	ND	ND	ND	ND	ND	ND
4-Chloro-o-Toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
2-Naphthylamine	0.002	ND	ND	ND	ND	ND	ND	ND
4-amino-2',3'-dimethylazobenzene	0.002	ND	ND	ND	ND	ND	ND	ND
5-Nitro-o-toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
4-Chloroaniline	0.002	ND	ND	ND	ND	ND	ND	ND
4-Methoxy-m-phenylenediamine	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Diaminodiphenylmethane	0.002	ND	ND	ND	ND	ND	ND	ND
3,3'-Dichlorobenzidine	0.002	ND	ND	ND	ND	ND	ND	ND
3,3'-Dimethoxybenzidine	0.002	ND	ND	ND	ND	ND	ND	ND



3,3'-Dimethylbenzidine	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Methylenedi-o-toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
6-methoxy-m-toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-methylenebis[2-chloroaniline]	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Oxydianiline	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Thiodianiline	0.002	ND	ND	ND	ND	ND	ND	ND
2-Aminotoluene	0.002	ND	ND	ND	ND	ND	ND	ND
4-methyl-m-phenylenediamine	0.002	ND	ND	ND	ND	ND	ND	ND
2,4,5-Trimethylaniline	0.002	ND	ND	ND	ND	ND	ND	ND
2-Methoxyaniline	0.002	ND	ND	ND	ND	ND	ND	ND
4-Aminoazobenzene	0.002	ND	ND	ND	ND	ND	ND	ND
1,3 phenylenediamine	0.002	ND	ND	ND	ND	ND	ND	ND
Total of other primary aromatic amines	0.01	0.01	ND	ND	ND	ND	ND	ND

Test Item	MDL (mg/kg)	Limit (mg/kg)	03			04		
			1st	2nd	3rd	1st	2nd	3rd
4-Aminobiphenyl	0.002	ND	ND	ND	ND	ND	ND	ND
Benzidine	0.002	ND	ND	ND	ND	ND	ND	ND
4-Chloro-o-Toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
2-Naphthylamine	0.002	ND	ND	ND	ND	ND	ND	ND
4-amino-2',3-dimethylazobenzene	0.002	ND	ND	ND	ND	ND	ND	ND
5-Nitro-o-toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
4-Chloroaniline	0.002	ND	ND	ND	ND	ND	ND	ND
4-Methoxy-m-phenylenediamine	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Diaminodiphenylmethane	0.002	ND	ND	ND	ND	ND	ND	ND
3,3'-Dichlorobenzidine	0.002	ND	ND	ND	ND	ND	ND	ND
3,3'-Dimethoxybenzidine	0.002	ND	ND	ND	ND	ND	ND	ND
3,3'-Dimethylbenzidine	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Methylenedi-o-toluidine	0.002	ND	ND	ND	ND	ND	ND	ND



6-methoxy-m-toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-methylenebis[2-chloroaniline]	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Oxydianiline	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Thiodianiline	0.002	ND	ND	ND	ND	ND	ND	ND
2-Aminotoluene	0.002	ND	ND	ND	ND	ND	ND	ND
4-methyl-m-phenylenediamine	0.002	ND	ND	ND	ND	ND	ND	ND
2,4,5-Trimethylaniline	0.002	ND	ND	ND	ND	ND	ND	ND
2-Methoxyaniline	0.002	ND	ND	ND	ND	ND	ND	ND
4-Aminoazobenzene	0.002	ND	ND	ND	ND	ND	ND	ND
1,3 phenylenediamine	0.002	ND	ND	ND	ND	ND	ND	ND
Total of other primary aromatic amines	0.01	0.01	ND	ND	ND	ND	ND	ND

Test Item	MDL (mg/kg)	Limit (mg/kg)	05			06		
			1st	2nd	3rd	1st	2nd	3rd
4-Aminobiphenyl	0.002	ND	ND	ND	ND	ND	ND	ND
Benzidine	0.002	ND	ND	ND	ND	ND	ND	ND
4-Chloro-o-Toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
2-Naphthylamine	0.002	ND	ND	ND	ND	ND	ND	ND
4-amino-2',3-dimethylazobenzene	0.002	ND	ND	ND	ND	ND	ND	ND
5-Nitro-o-toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
4-Chloroaniline	0.002	ND	ND	ND	ND	ND	ND	ND
4-Methoxy-m-phenylenediamine	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Diaminodiphenylmethane	0.002	ND	ND	ND	ND	ND	ND	ND
3,3'-Dichlorobenzidine	0.002	ND	ND	ND	ND	ND	ND	ND
3,3'-Dimethoxybenzidine	0.002	ND	ND	ND	ND	ND	ND	ND
3,3'-Dimethylbenzidine	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Methylenedi-o-toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
6-methoxy-m-toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-methylenebis[2-chloroaniline]	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Oxydianiline	0.002	ND	ND	ND	ND	ND	ND	ND



4,4'-Thiodianiline	0.002	ND	ND	ND	ND	ND	ND	ND
2-Aminotoluene	0.002	ND	ND	ND	ND	ND	ND	ND
4-methyl-m-phenylenediamine	0.002	ND	ND	ND	ND	ND	ND	ND
2,4,5-Trimethylaniline	0.002	ND	ND	ND	ND	ND	ND	ND
2-Methoxyaniline	0.002	ND	ND	ND	ND	ND	ND	ND
4-Aminoazobenzene	0.002	ND	ND	ND	ND	ND	ND	ND
1,3 phenylenediamine	0.002	ND	ND	ND	ND	ND	ND	ND
Total of other primary aromatic amines	0.01	0.01	ND	ND	ND	ND	ND	ND

Test Item	MDL (mg/kg)	Limit (mg/kg)	07			08		
			1st	2nd	3rd	1st	2nd	3rd
4-Aminobiphenyl	0.002	ND	ND	ND	ND	ND	ND	ND
Benzidine	0.002	ND	ND	ND	ND	ND	ND	ND
4-Chloro-o-Toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
2-Naphthylamine	0.002	ND	ND	ND	ND	ND	ND	ND
4-amino-2',3-dimethylazobenzene	0.002	ND	ND	ND	ND	ND	ND	ND
5-Nitro-o-toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
4-Chloroaniline	0.002	ND	ND	ND	ND	ND	ND	ND
4-Methoxy-m-phenylenediamine	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Diaminodiphenylmethane	0.002	ND	ND	ND	ND	ND	ND	ND
3,3'-Dichlorobenzidine	0.002	ND	ND	ND	ND	ND	ND	ND
3,3'-Dimethoxybenzidine	0.002	ND	ND	ND	ND	ND	ND	ND
3,3'-Dimethybenzidine	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Methylenedi-o-toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
6-methoxy-m-toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-methylenebis[2-chloroaniline]	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Oxydianiline	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Thiodianiline	0.002	ND	ND	ND	ND	ND	ND	ND
2-Aminotoluene	0.002	ND	ND	ND	ND	ND	ND	ND
4-methyl-m-phenylenediamine	0.002	ND	ND	ND	ND	ND	ND	ND



2,4,5-Trimethylaniline	0.002	ND	ND	ND	ND	ND	ND	ND
2-Methoxyaniline	0.002	ND	ND	ND	ND	ND	ND	ND
4-Aminoazobenzene	0.002	ND	ND	ND	ND	ND	ND	ND
1,3 phenylenediamine	0.002	ND	ND	ND	ND	ND	ND	ND
Total of other primary aromatic amines	0.01	0.01	ND	ND	ND	ND	ND	ND

Test Item	MDL (mg/kg)	Limit (mg/kg)	09			10		
			1st	2nd	3rd	1st	2nd	3rd
4-Aminobiphenyl	0.002	ND	ND	ND	ND	ND	ND	ND
Benzidine	0.002	ND	ND	ND	ND	ND	ND	ND
4-Chloro-o-Toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
2-Naphthylamine	0.002	ND	ND	ND	ND	ND	ND	ND
4-amino-2',3-dimethylazobenzene	0.002	ND	ND	ND	ND	ND	ND	ND
5-Nitro-o-toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
4-Chloroaniline	0.002	ND	ND	ND	ND	ND	ND	ND
4-Methoxy-m-phenylenediamine	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Diaminodiphenylmethane	0.002	ND	ND	ND	ND	ND	ND	ND
3,3'-Dichlorobenzidine	0.002	ND	ND	ND	ND	ND	ND	ND
3,3'-Dimethoxybenzidine	0.002	ND	ND	ND	ND	ND	ND	ND
3,3'-Dimethylbenzidine	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Methylenedi-o-toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
6-methoxy-m-toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-methylenebis[2-chloroaniline]	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Oxydianiline	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Thiodianiline	0.002	ND	ND	ND	ND	ND	ND	ND
2-Aminotoluene	0.002	ND	ND	ND	ND	ND	ND	ND
4-methyl-m-phenylenediamine	0.002	ND	ND	ND	ND	ND	ND	ND
2,4,5-Trimethylaniline	0.002	ND	ND	ND	ND	ND	ND	ND
2-Methoxyaniline	0.002	ND	ND	ND	ND	ND	ND	ND
4-Aminoazobenzene	0.002	ND	ND	ND	ND	ND	ND	ND



1,3 phenylenediamine	0.002	ND	ND	ND	ND	ND	ND	ND
Total of other primary aromatic amines	0.01	0.01	ND	ND	ND	ND	ND	ND

Test Item	MDL (mg/kg)	Limit (mg/kg)	11			12		
			1st	2nd	3rd	1st	2nd	3rd
4-Aminobiphenyl	0.002	ND	ND	ND	ND	ND	ND	ND
Benzidine	0.002	ND	ND	ND	ND	ND	ND	ND
4-Chloro-o-Toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
2-Naphthylamine	0.002	ND	ND	ND	ND	ND	ND	ND
4-amino-2',3-dimethylazobenzene	0.002	ND	ND	ND	ND	ND	ND	ND
5-Nitro-o-toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
4-Chloroaniline	0.002	ND	ND	ND	ND	ND	ND	ND
4-Methoxy-m-phenylenediamine	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Diaminodiphenylmethane	0.002	ND	ND	ND	ND	ND	ND	ND
3,3'-Dichlorobenzidine	0.002	ND	ND	ND	ND	ND	ND	ND
3,3'-Dimethoxybenzidine	0.002	ND	ND	ND	ND	ND	ND	ND
3,3'-Dimethylbenzidine	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Methylenedi-o-toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
6-methoxy-m-toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-methylenebis[2-chloroaniline]	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Oxydianiline	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Thiodianiline	0.002	ND	ND	ND	ND	ND	ND	ND
2-Aminotoluene	0.002	ND	ND	ND	ND	ND	ND	ND
4-methyl-m-phenylenediamine	0.002	ND	ND	ND	ND	ND	ND	ND
2,4,5-Trimethylaniline	0.002	ND	ND	ND	ND	ND	ND	ND
2-Methoxyaniline	0.002	ND	ND	ND	ND	ND	ND	ND
4-Aminoazobenzene	0.002	ND	ND	ND	ND	ND	ND	ND
1,3 phenylenediamine	0.002	ND	ND	ND	ND	ND	ND	ND
Total of other primary aromatic amines	0.01	0.01	ND	ND	ND	ND	ND	ND



Test Item	MDL (mg/kg)	Limit (mg/kg)	13			14		
			1st	2nd	3rd	1st	2nd	3rd
4-Aminobiphenyl	0.002	ND	ND	ND	ND	ND	ND	ND
Benzidine	0.002	ND	ND	ND	ND	ND	ND	ND
4-Chloro-o-Toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
2-Naphthylamine	0.002	ND	ND	ND	ND	ND	ND	ND
4-amino-2',3-dimethylazobenzene	0.002	ND	ND	ND	ND	ND	ND	ND
5-Nitro-o-toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
4-Chloroaniline	0.002	ND	ND	ND	ND	ND	ND	ND
4-Methoxy-m-phenylenediamine	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Diaminodiphenylmethane	0.002	ND	ND	ND	ND	ND	ND	ND
3,3'-Dichlorobenzidine	0.002	ND	ND	ND	ND	ND	ND	ND
3,3'-Dimethoxybenzidine	0.002	ND	ND	ND	ND	ND	ND	ND
3,3'-Dimethylbenzidine	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Methylenedi-o-toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
6-methoxy-m-toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-methylenebis[2-chloroaniline]	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Oxydianiline	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Thiodianiline	0.002	ND	ND	ND	ND	ND	ND	ND
2-Aminotoluene	0.002	ND	ND	ND	ND	ND	ND	ND
4-methyl-m-phenylenediamine	0.002	ND	ND	ND	ND	ND	ND	ND
2,4,5-Trimethylaniline	0.002	ND	ND	ND	ND	ND	ND	ND
2-Methoxyaniline	0.002	ND	ND	ND	ND	ND	ND	ND
4-Aminoazobenzene	0.002	ND	ND	ND	ND	ND	ND	ND
1,3 phenylenediamine	0.002	ND	ND	ND	ND	ND	ND	ND
Total of other primary aromatic amines	0.01	0.01	ND	ND	ND	ND	ND	ND

Test Item	MDL (mg/kg)	Limit (mg/kg)	15			16		
			1st	2nd	3rd	1st	2nd	3rd
4-Aminobiphenyl	0.002	ND	ND	ND	ND	ND	ND	ND



Benzidine	0.002	ND	ND	ND	ND	ND	ND	ND
4-Chloro-o-Toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
2-Naphthylamine	0.002	ND	ND	ND	ND	ND	ND	ND
4-amino-2',3-dimethylazobenzene	0.002	ND	ND	ND	ND	ND	ND	ND
5-Nitro-o-toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
4-Chloroaniline	0.002	ND	ND	ND	ND	ND	ND	ND
4-Methoxy-m-phenylenediamine	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Diaminodiphenylmethane	0.002	ND	ND	ND	ND	ND	ND	ND
3,3'-Dichlorobenzidine	0.002	ND	ND	ND	ND	ND	ND	ND
3,3'-Dimethoxybenzidine	0.002	ND	ND	ND	ND	ND	ND	ND
3,3'-Dimethybenzidine	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Methylenedi-o-toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
6-methoxy-m-toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-methylenebis[2-chloroaniline]	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Oxydianiline	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Thiodianiline	0.002	ND	ND	ND	ND	ND	ND	ND
2-Aminotoluene	0.002	ND	ND	ND	ND	ND	ND	ND
4-methyl-m-phenylenediamine	0.002	ND	ND	ND	ND	ND	ND	ND
2,4,5-Trimethylaniline	0.002	ND	ND	ND	ND	ND	ND	ND
2-Methoxyaniline	0.002	ND	ND	ND	ND	ND	ND	ND
4-Aminoazobenzene	0.002	ND	ND	ND	ND	ND	ND	ND
1,3 phenylenediamine	0.002	ND	ND	ND	ND	ND	ND	ND
Total of other primary aromatic amines	0.01	0.01	ND	ND	ND	ND	ND	ND

Test Item	MDL (mg/kg)	Limit (mg/kg)	17			18		
			1st	2nd	3rd	1st	2nd	3rd
4-Aminobiphenyl	0.002	ND	ND	ND	ND	ND	ND	ND
Benzidine	0.002	ND	ND	ND	ND	ND	ND	ND
4-Chloro-o-Toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
2-Naphthylamine	0.002	ND	ND	ND	ND	ND	ND	ND



4-amino-2',3-dimethylazobenzene	0.002	ND	ND	ND	ND	ND	ND	ND
5-Nitro-o-toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
4-Chloroaniline	0.002	ND	ND	ND	ND	ND	ND	ND
4-Methoxy-m-phenylenediamine	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Diaminodiphenylmethane	0.002	ND	ND	ND	ND	ND	ND	ND
3,3'-Dichlorobenzidine	0.002	ND	ND	ND	ND	ND	ND	ND
3,3'-Dimethoxybenzidine	0.002	ND	ND	ND	ND	ND	ND	ND
3,3'-Dimethylbenzidine	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Methylenedi-o-toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
6-methoxy-m-toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-methylenebis[2-chloroaniline]	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Oxydianiline	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Thiodianiline	0.002	ND	ND	ND	ND	ND	ND	ND
2-Aminotoluene	0.002	ND	ND	ND	ND	ND	ND	ND
4-methyl-m-phenylenediamine	0.002	ND	ND	ND	ND	ND	ND	ND
2,4,5-Trimethylaniline	0.002	ND	ND	ND	ND	ND	ND	ND
2-Methoxyaniline	0.002	ND	ND	ND	ND	ND	ND	ND
4-Aminoazobenzene	0.002	ND	ND	ND	ND	ND	ND	ND
1,3 phenylenediamine	0.002	ND	ND	ND	ND	ND	ND	ND
Total of other primary aromatic amines	0.01	0.01	ND	ND	ND	ND	ND	ND

Test Item	MDL (mg/kg)	Limit (mg/kg)	19			20		
			1st	2nd	3rd	1st	2nd	3rd
4-Aminobiphenyl	0.002	ND	ND	ND	ND	ND	ND	ND
Benzidine	0.002	ND	ND	ND	ND	ND	ND	ND
4-Chloro-o-Toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
2-Naphthylamine	0.002	ND	ND	ND	ND	ND	ND	ND
4-amino-2',3-dimethylazobenzene	0.002	ND	ND	ND	ND	ND	ND	ND
5-Nitro-o-toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
4-Chloroaniline	0.002	ND	ND	ND	ND	ND	ND	ND



4-Methoxy-m-phenylenediamine	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Diaminodiphenylmethane	0.002	ND	ND	ND	ND	ND	ND	ND
3,3'-Dichlorobenzidine	0.002	ND	ND	ND	ND	ND	ND	ND
3,3'-Dimethoxybenzidine	0.002	ND	ND	ND	ND	ND	ND	ND
3,3'-Dimethylbenzidine	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Methylenedi-o-toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
6-methoxy-m-toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-methylenebis[2-chloroaniline]	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Oxydianiline	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Thiodianiline	0.002	ND	ND	ND	ND	ND	ND	ND
2-Aminotoluene	0.002	ND	ND	ND	ND	ND	ND	ND
4-methyl-m-phenylenediamine	0.002	ND	ND	ND	ND	ND	ND	ND
2,4,5-Trimethylaniline	0.002	ND	ND	ND	ND	ND	ND	ND
2-Methoxyaniline	0.002	ND	ND	ND	ND	ND	ND	ND
4-Aminoazobenzene	0.002	ND	ND	ND	ND	ND	ND	ND
1,3 phenylenediamine	0.002	ND	ND	ND	ND	ND	ND	ND
Total of other primary aromatic amines	0.01	0.01	ND	ND	ND	ND	ND	ND

Test Item	MDL (mg/kg)	Limit (mg/kg)	21			22		
			1st	2nd	3rd	1st	2nd	3rd
4-Aminobiphenyl	0.002	ND	ND	ND	ND	ND	ND	ND
Benzidine	0.002	ND	ND	ND	ND	ND	ND	ND
4-Chloro-o-Toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
2-Naphthylamine	0.002	ND	ND	ND	ND	ND	ND	ND
4-amino-2',3-dimethylazobenzene	0.002	ND	ND	ND	ND	ND	ND	ND
5-Nitro-o-toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
4-Chloroaniline	0.002	ND	ND	ND	ND	ND	ND	ND
4-Methoxy-m-phenylenediamine	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Diaminodiphenylmethane	0.002	ND	ND	ND	ND	ND	ND	ND
3,3'-Dichlorobenzidine	0.002	ND	ND	ND	ND	ND	ND	ND



3,3'-Dimethoxybenzidine	0.002	ND	ND	ND	ND	ND	ND	ND
3,3'-Dimethybenzidine	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Methylenedi-o-toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
6-methoxy-m-toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-methylenebis[2-chloroaniline]	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Oxydianiline	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Thiodianiline	0.002	ND	ND	ND	ND	ND	ND	ND
2-Aminotoluene	0.002	ND	ND	ND	ND	ND	ND	ND
4-methyl-m-phenylenediamine	0.002	ND	ND	ND	ND	ND	ND	ND
2,4,5-Trimethylaniline	0.002	ND	ND	ND	ND	ND	ND	ND
2-Methoxyaniline	0.002	ND	ND	ND	ND	ND	ND	ND
4-Aminoazobenzene	0.002	ND	ND	ND	ND	ND	ND	ND
1,3 phenylenediamine	0.002	ND	ND	ND	ND	ND	ND	ND
Total of other primary aromatic amines	0.01	0.01	ND	ND	ND	ND	ND	ND

Test Item	MDL (mg/kg)	Limit (mg/kg)	23			24		
			1st	2nd	3rd	1st	2nd	3rd
4-Aminobiphenyl	0.002	ND	ND	ND	ND	ND	ND	ND
Benzidine	0.002	ND	ND	ND	ND	ND	ND	ND
4-Chloro-o-Toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
2-Naphthylamine	0.002	ND	ND	ND	ND	ND	ND	ND
4-amino-2',3-dimethylazobenzene	0.002	ND	ND	ND	ND	ND	ND	ND
5-Nitro-o-toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
4-Chloroaniline	0.002	ND	ND	ND	ND	ND	ND	ND
4-Methoxy-m-phenylenediamine	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Diaminodiphenylmethane	0.002	ND	ND	ND	ND	ND	ND	ND
3,3'-Dichlorobenzidine	0.002	ND	ND	ND	ND	ND	ND	ND
3,3'-Dimethoxybenzidine	0.002	ND	ND	ND	ND	ND	ND	ND
3,3'-Dimethybenzidine	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Methylenedi-o-toluidine	0.002	ND	ND	ND	ND	ND	ND	ND



6-methoxy-m-toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-methylenebis[2-chloroaniline]	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Oxydianiline	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Thiodianiline	0.002	ND	ND	ND	ND	ND	ND	ND
2-Aminotoluene	0.002	ND	ND	ND	ND	ND	ND	ND
4-methyl-m-phenylenediamine	0.002	ND	ND	ND	ND	ND	ND	ND
2,4,5-Trimethylaniline	0.002	ND	ND	ND	ND	ND	ND	ND
2-Methoxyaniline	0.002	ND	ND	ND	ND	ND	ND	ND
4-Aminoazobenzene	0.002	ND	ND	ND	ND	ND	ND	ND
1,3 phenylenediamine	0.002	ND	ND	ND	ND	ND	ND	ND
Total of other primary aromatic amines	0.01	0.01	ND	ND	ND	ND	ND	ND

Test Item	MDL (mg/kg)	Limit (mg/kg)	25			26		
			1st	2nd	3rd	1st	2nd	3rd
4-Aminobiphenyl	0.002	ND	ND	ND	ND	ND	ND	ND
Benzidine	0.002	ND	ND	ND	ND	ND	ND	ND
4-Chloro-o-Toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
2-Naphthylamine	0.002	ND	ND	ND	ND	ND	ND	ND
4-amino-2',3-dimethylazobenzene	0.002	ND	ND	ND	ND	ND	ND	ND
5-Nitro-o-toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
4-Chloroaniline	0.002	ND	ND	ND	ND	ND	ND	ND
4-Methoxy-m-phenylenediamine	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Diaminodiphenylmethane	0.002	ND	ND	ND	ND	ND	ND	ND
3,3'-Dichlorobenzidine	0.002	ND	ND	ND	ND	ND	ND	ND
3,3'-Dimethoxybenzidine	0.002	ND	ND	ND	ND	ND	ND	ND
3,3'-Dimethylbenzidine	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Methylenedi-o-toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
6-methoxy-m-toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-methylenebis[2-chloroaniline]	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Oxydianiline	0.002	ND	ND	ND	ND	ND	ND	ND



4,4'-Thiodianiline	0.002	ND	ND	ND	ND	ND	ND	ND
2-Aminotoluene	0.002	ND	ND	ND	ND	ND	ND	ND
4-methyl-m-phenylenediamine	0.002	ND	ND	ND	ND	ND	ND	ND
2,4,5-Trimethylaniline	0.002	ND	ND	ND	ND	ND	ND	ND
2-Methoxyaniline	0.002	ND	ND	ND	ND	ND	ND	ND
4-Aminoazobenzene	0.002	ND	ND	ND	ND	ND	ND	ND
1,3 phenylenediamine	0.002	ND	ND	ND	ND	ND	ND	ND
Total of other primary aromatic amines	0.01	0.01	ND	ND	ND	ND	ND	ND

Test Item	MDL (mg/kg)	Limit (mg/kg)	27			28		
			1st	2nd	3rd	1st	2nd	3rd
4-Aminobiphenyl	0.002	ND	ND	ND	ND	ND	ND	ND
Benzidine	0.002	ND	ND	ND	ND	ND	ND	ND
4-Chloro-o-Toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
2-Naphthylamine	0.002	ND	ND	ND	ND	ND	ND	ND
4-amino-2',3-dimethylazobenzene	0.002	ND	ND	ND	ND	ND	ND	ND
5-Nitro-o-toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
4-Chloroaniline	0.002	ND	ND	ND	ND	ND	ND	ND
4-Methoxy-m-phenylenediamine	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Diaminodiphenylmethane	0.002	ND	ND	ND	ND	ND	ND	ND
3,3'-Dichlorobenzidine	0.002	ND	ND	ND	ND	ND	ND	ND
3,3'-Dimethoxybenzidine	0.002	ND	ND	ND	ND	ND	ND	ND
3,3'-Dimethybenzidine	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Methylenedi-o-toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
6-methoxy-m-toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-methylenebis[2-chloroaniline]	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Oxydianiline	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Thiodianiline	0.002	ND	ND	ND	ND	ND	ND	ND
2-Aminotoluene	0.002	ND	ND	ND	ND	ND	ND	ND
4-methyl-m-phenylenediamine	0.002	ND	ND	ND	ND	ND	ND	ND



2,4,5-Trimethylaniline	0.002	ND	ND	ND	ND	ND	ND	ND
2-Methoxyaniline	0.002	ND	ND	ND	ND	ND	ND	ND
4-Aminoazobenzene	0.002	ND	ND	ND	ND	ND	ND	ND
1,3 phenylenediamine	0.002	ND	ND	ND	ND	ND	ND	ND
Total of other primary aromatic amines	0.01	0.01	ND	ND	ND	ND	ND	ND

Test Item	MDL (mg/kg)	Limit (mg/kg)	29			30		
			1st	2nd	3rd	1st	2nd	3rd
4-Aminobiphenyl	0.002	ND	ND	ND	ND	ND	ND	ND
Benzidine	0.002	ND	ND	ND	ND	ND	ND	ND
4-Chloro-o-Toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
2-Naphthylamine	0.002	ND	ND	ND	ND	ND	ND	ND
4-amino-2',3-dimethylazobenzene	0.002	ND	ND	ND	ND	ND	ND	ND
5-Nitro-o-toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
4-Chloroaniline	0.002	ND	ND	ND	ND	ND	ND	ND
4-Methoxy-m-phenylenediamine	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Diaminodiphenylmethane	0.002	ND	ND	ND	ND	ND	ND	ND
3,3'-Dichlorobenzidine	0.002	ND	ND	ND	ND	ND	ND	ND
3,3'-Dimethoxybenzidine	0.002	ND	ND	ND	ND	ND	ND	ND
3,3'-Dimethylbenzidine	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Methylenedi-o-toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
6-methoxy-m-toluidine	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-methylenebis[2-chloroaniline]	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Oxydianiline	0.002	ND	ND	ND	ND	ND	ND	ND
4,4'-Thiodianiline	0.002	ND	ND	ND	ND	ND	ND	ND
2-Aminotoluene	0.002	ND	ND	ND	ND	ND	ND	ND
4-methyl-m-phenylenediamine	0.002	ND	ND	ND	ND	ND	ND	ND
2,4,5-Trimethylaniline	0.002	ND	ND	ND	ND	ND	ND	ND
2-Methoxyaniline	0.002	ND	ND	ND	ND	ND	ND	ND
4-Aminoazobenzene	0.002	ND	ND	ND	ND	ND	ND	ND



1,3 phenylenediamine	0.002	ND	ND	ND	ND	ND	ND	ND
Total of other primary aromatic amines	0.01	0.01	ND	ND	ND	ND	ND	ND

**Note:**

- (1) 1mg/kg=0.0001%;
- (2) ND = Not Detected (<MDL);
- (3) MDL= Method Detection Limit.

**13. Specific Migration of Heavy Metals**

Test Method: With reference to BS EN 13130-1: 2004, determined by ICP-OES/ICP-MS.

Test conditions: 3% acetic acid, 70°C, 2h

Test Item	Unit	MDL	Limit	01			02		
				1st	2nd	3rd	1st	2nd	3rd
Aluminum (Al)	mg/kg	0.2	1	ND	ND	ND	ND	ND	ND
Antimony (Sb)	mg/kg	0.01	0.04	ND	ND	ND	ND	ND	ND
Arsenic (As)	mg/kg	0.01	ND	ND	ND	ND	ND	ND	ND
Barium (Ba)	mg/kg	0.2	1	ND	ND	ND	ND	ND	ND
Cadmium (Cd)	mg/kg	0.002	ND	ND	ND	ND	ND	ND	ND
Chromium (Cr)	mg/kg	0.01	ND	ND	ND	ND	ND	ND	ND
Cobalt (Co)	mg/kg	0.01	0.05	ND	ND	ND	ND	ND	ND
Copper (Cu)	mg/kg	1	5	ND	ND	ND	ND	ND	ND
Iron (Fe)	mg/kg	9.6	48	ND	ND	ND	ND	ND	ND
Lead (Pb)	mg/kg	0.01	ND	ND	ND	ND	ND	ND	ND
Lithium (Li)	mg/kg	0.12	0.6	ND	ND	ND	ND	ND	ND
Manganese (Mn)	mg/kg	0.12	0.6	ND	ND	ND	ND	ND	ND
Mercury (Hg)	mg/kg	0.01	ND	ND	ND	ND	ND	ND	ND
Nickel (Ni)	mg/kg	0.01	0.02	ND	ND	ND	ND	ND	ND
Zinc (Zn)	mg/kg	1	5	ND	ND	ND	ND	ND	ND
Europium (Eu)	mg/kg	0.01	-	ND	ND	ND	ND	ND	ND
Gadolinium (Gd)	mg/kg	0.01	-	ND	ND	ND	ND	ND	ND
Lanthanum (La)	mg/kg	0.01	-	ND	ND	ND	ND	ND	ND
Terbium (Tb)	mg/kg	0.01	-	ND	ND	ND	ND	ND	ND
Sum (Ln)	mg/kg	-	0.05	ND	ND	ND	ND	ND	ND



Test Item	Unit	MDL	Limit	03			04		
				1st	2nd	3rd	1st	2nd	3rd
Aluminum (Al)	mg/kg	0.2	1	ND	ND	ND	ND	ND	ND
Antimony (Sb)	mg/kg	0.01	0.04	ND	ND	ND	ND	ND	ND
Arsenic (As)	mg/kg	0.01	ND	ND	ND	ND	ND	ND	ND
Barium (Ba)	mg/kg	0.2	1	ND	ND	ND	ND	ND	ND
Cadmium (Cd)	mg/kg	0.002	ND	ND	ND	ND	ND	ND	ND
Chromium (Cr)	mg/kg	0.01	ND	ND	ND	ND	ND	ND	ND
Cobalt (Co)	mg/kg	0.01	0.05	ND	ND	ND	ND	ND	ND
Copper (Cu)	mg/kg	1	5	ND	ND	ND	ND	ND	ND
Iron (Fe)	mg/kg	9.6	48	ND	ND	ND	ND	ND	ND
Lead (Pb)	mg/kg	0.01	ND	ND	ND	ND	ND	ND	ND
Lithium (Li)	mg/kg	0.12	0.6	ND	ND	ND	ND	ND	ND
Manganese (Mn)	mg/kg	0.12	0.6	ND	ND	ND	ND	ND	ND
Mercury (Hg)	mg/kg	0.01	ND	ND	ND	ND	ND	ND	ND
Nickel (Ni)	mg/kg	0.01	0.02	ND	ND	ND	ND	ND	ND
Zinc (Zn)	mg/kg	1	5	ND	ND	ND	ND	ND	ND
Europium (Eu)	mg/kg	0.01	-	ND	ND	ND	ND	ND	ND
Gadolinium (Gd)	mg/kg	0.01	-	ND	ND	ND	ND	ND	ND
Lanthanum (La)	mg/kg	0.01	-	ND	ND	ND	ND	ND	ND
Terbium (Tb)	mg/kg	0.01	-	ND	ND	ND	ND	ND	ND
Sum (Ln)	mg/kg	-	0.05	ND	ND	ND	ND	ND	ND

Test Item	Unit	MDL	Limit	05			06		
				1st	2nd	3rd	1st	2nd	3rd
Aluminum (Al)	mg/kg	0.2	1	ND	ND	ND	ND	ND	ND
Antimony (Sb)	mg/kg	0.01	0.04	ND	ND	ND	ND	ND	ND
Arsenic (As)	mg/kg	0.01	ND	ND	ND	ND	ND	ND	ND
Barium (Ba)	mg/kg	0.2	1	ND	ND	ND	ND	ND	ND
Cadmium (Cd)	mg/kg	0.002	ND	ND	ND	ND	ND	ND	ND



Chromium (Cr)	mg/kg	0.01	ND	ND	ND	ND	ND	ND	ND
Cobalt (Co)	mg/kg	0.01	0.05	ND	ND	ND	ND	ND	ND
Copper (Cu)	mg/kg	1	5	ND	ND	ND	ND	ND	ND
Iron (Fe)	mg/kg	9.6	48	ND	ND	ND	ND	ND	ND
Lead (Pb)	mg/kg	0.01	ND	ND	ND	ND	ND	ND	ND
Lithium (Li)	mg/kg	0.12	0.6	ND	ND	ND	ND	ND	ND
Manganese (Mn)	mg/kg	0.12	0.6	ND	ND	ND	ND	ND	ND
Mercury (Hg)	mg/kg	0.01	ND	ND	ND	ND	ND	ND	ND
Nickel (Ni)	mg/kg	0.01	0.02	ND	ND	ND	ND	ND	ND
Zinc (Zn)	mg/kg	1	5	ND	ND	ND	ND	ND	ND
Europium (Eu)	mg/kg	0.01	-	ND	ND	ND	ND	ND	ND
Gadolinium (Gd)	mg/kg	0.01	-	ND	ND	ND	ND	ND	ND
Lanthanum (La)	mg/kg	0.01	-	ND	ND	ND	ND	ND	ND
Terbium (Tb)	mg/kg	0.01	-	ND	ND	ND	ND	ND	ND
Sum (Ln)	mg/kg	-	0.05	ND	ND	ND	ND	ND	ND

Test Item	Unit	MDL	Limit	07			08		
				1st	2nd	3rd	1st	2nd	3rd
Aluminum (Al)	mg/kg	0.2	1	ND	ND	ND	ND	ND	ND
Antimony (Sb)	mg/kg	0.01	0.04	ND	ND	ND	ND	ND	ND
Arsenic (As)	mg/kg	0.01	ND	ND	ND	ND	ND	ND	ND
Barium (Ba)	mg/kg	0.2	1	ND	ND	ND	ND	ND	ND
Cadmium (Cd)	mg/kg	0.002	ND	ND	ND	ND	ND	ND	ND
Chromium (Cr)	mg/kg	0.01	ND	ND	ND	ND	ND	ND	ND
Cobalt (Co)	mg/kg	0.01	0.05	ND	ND	ND	ND	ND	ND
Copper (Cu)	mg/kg	1	5	ND	ND	ND	ND	ND	ND
Iron (Fe)	mg/kg	9.6	48	ND	ND	ND	ND	ND	ND
Lead (Pb)	mg/kg	0.01	ND	ND	ND	ND	ND	ND	ND
Lithium (Li)	mg/kg	0.12	0.6	ND	ND	ND	ND	ND	ND
Manganese (Mn)	mg/kg	0.12	0.6	ND	ND	ND	ND	ND	ND



Mercury (Hg)	mg/kg	0.01	ND	ND	ND	ND	ND	ND	ND
Nickel (Ni)	mg/kg	0.01	0.02	ND	ND	ND	ND	ND	ND
Zinc (Zn)	mg/kg	1	5	ND	ND	ND	ND	ND	ND
Europium (Eu)	mg/kg	0.01	-	ND	ND	ND	ND	ND	ND
Gadolinium (Gd)	mg/kg	0.01	-	ND	ND	ND	ND	ND	ND
Lanthanum (La)	mg/kg	0.01	-	ND	ND	ND	ND	ND	ND
Terbium (Tb)	mg/kg	0.01	-	ND	ND	ND	ND	ND	ND
Sum (Ln)	mg/kg	-	0.05	ND	ND	ND	ND	ND	ND

Test Item	Unit	MDL	Limit	09			10		
				1st	2nd	3rd	1st	2nd	3rd
Aluminum (Al)	mg/kg	0.2	1	ND	ND	ND	ND	ND	ND
Antimony (Sb)	mg/kg	0.01	0.04	ND	ND	ND	ND	ND	ND
Arsenic (As)	mg/kg	0.01	ND	ND	ND	ND	ND	ND	ND
Barium (Ba)	mg/kg	0.2	1	ND	ND	ND	ND	ND	ND
Cadmium (Cd)	mg/kg	0.002	ND	ND	ND	ND	ND	ND	ND
Chromium (Cr)	mg/kg	0.01	ND	ND	ND	ND	ND	ND	ND
Cobalt (Co)	mg/kg	0.01	0.05	ND	ND	ND	ND	ND	ND
Copper (Cu)	mg/kg	1	5	ND	ND	ND	ND	ND	ND
Iron (Fe)	mg/kg	9.6	48	ND	ND	ND	ND	ND	ND
Lead (Pb)	mg/kg	0.01	ND	ND	ND	ND	ND	ND	ND
Lithium (Li)	mg/kg	0.12	0.6	ND	ND	ND	ND	ND	ND
Manganese (Mn)	mg/kg	0.12	0.6	ND	ND	ND	ND	ND	ND
Mercury (Hg)	mg/kg	0.01	ND	ND	ND	ND	ND	ND	ND
Nickel (Ni)	mg/kg	0.01	0.02	ND	ND	ND	ND	ND	ND
Zinc (Zn)	mg/kg	1	5	ND	ND	ND	ND	ND	ND
Europium (Eu)	mg/kg	0.01	-	ND	ND	ND	ND	ND	ND
Gadolinium (Gd)	mg/kg	0.01	-	ND	ND	ND	ND	ND	ND
Lanthanum (La)	mg/kg	0.01	-	ND	ND	ND	ND	ND	ND



Terbium (Tb)	mg/kg	0.01	-	ND	ND	ND	ND	ND	ND
Sum (Ln)	mg/kg	-	0.05	ND	ND	ND	ND	ND	ND

Test Item	Unit	MDL	Limit	11			12		
				1st	2nd	3rd	1st	2nd	3rd
Aluminum (Al)	mg/kg	0.2	1	ND	ND	ND	ND	ND	ND
Antimony (Sb)	mg/kg	0.01	0.04	ND	ND	ND	ND	ND	ND
Arsenic (As)	mg/kg	0.01	ND	ND	ND	ND	ND	ND	ND
Barium (Ba)	mg/kg	0.2	1	ND	ND	ND	ND	ND	ND
Cadmium (Cd)	mg/kg	0.002	ND	ND	ND	ND	ND	ND	ND
Chromium (Cr)	mg/kg	0.01	ND	ND	ND	ND	ND	ND	ND
Cobalt (Co)	mg/kg	0.01	0.05	ND	ND	ND	ND	ND	ND
Copper (Cu)	mg/kg	1	5	ND	ND	ND	ND	ND	ND
Iron (Fe)	mg/kg	9.6	48	ND	ND	ND	ND	ND	ND
Lead (Pb)	mg/kg	0.01	ND	ND	ND	ND	ND	ND	ND
Lithium (Li)	mg/kg	0.12	0.6	ND	ND	ND	ND	ND	ND
Manganese (Mn)	mg/kg	0.12	0.6	ND	ND	ND	ND	ND	ND
Mercury (Hg)	mg/kg	0.01	ND	ND	ND	ND	ND	ND	ND
Nickel (Ni)	mg/kg	0.01	0.02	ND	ND	ND	ND	ND	ND
Zinc (Zn)	mg/kg	1	5	ND	ND	ND	ND	ND	ND
Europium (Eu)	mg/kg	0.01	-	ND	ND	ND	ND	ND	ND
Gadolinium (Gd)	mg/kg	0.01	-	ND	ND	ND	ND	ND	ND
Lanthanum (La)	mg/kg	0.01	-	ND	ND	ND	ND	ND	ND
Terbium (Tb)	mg/kg	0.01	-	ND	ND	ND	ND	ND	ND
Sum (Ln)	mg/kg	-	0.05	ND	ND	ND	ND	ND	ND

Test Item	Unit	MDL	Limit	13			14		
				1st	2nd	3rd	1st	2nd	3rd
Aluminum (Al)	mg/kg	0.2	1	ND	ND	ND	ND	ND	ND
Antimony (Sb)	mg/kg	0.01	0.04	ND	ND	ND	ND	ND	ND



Arsenic (As)	mg/kg	0.01	ND	ND	ND	ND	ND	ND	ND
Barium (Ba)	mg/kg	0.2	1	ND	ND	ND	ND	ND	ND
Cadmium (Cd)	mg/kg	0.002	ND	ND	ND	ND	ND	ND	ND
Chromium (Cr)	mg/kg	0.01	ND	ND	ND	ND	ND	ND	ND
Cobalt (Co)	mg/kg	0.01	0.05	ND	ND	ND	ND	ND	ND
Copper (Cu)	mg/kg	1	5	ND	ND	ND	ND	ND	ND
Iron (Fe)	mg/kg	9.6	48	ND	ND	ND	ND	ND	ND
Lead (Pb)	mg/kg	0.01	ND	ND	ND	ND	ND	ND	ND
Lithium (Li)	mg/kg	0.12	0.6	ND	ND	ND	ND	ND	ND
Manganese (Mn)	mg/kg	0.12	0.6	ND	ND	ND	ND	ND	ND
Mercury (Hg)	mg/kg	0.01	ND	ND	ND	ND	ND	ND	ND
Nickel (Ni)	mg/kg	0.01	0.02	ND	ND	ND	ND	ND	ND
Zinc (Zn)	mg/kg	1	5	ND	ND	ND	ND	ND	ND
Europium (Eu)	mg/kg	0.01	-	ND	ND	ND	ND	ND	ND
Gadolinium (Gd)	mg/kg	0.01	-	ND	ND	ND	ND	ND	ND
Lanthanum (La)	mg/kg	0.01	-	ND	ND	ND	ND	ND	ND
Terbium (Tb)	mg/kg	0.01	-	ND	ND	ND	ND	ND	ND
Sum (Ln)	mg/kg	-	0.05	ND	ND	ND	ND	ND	ND

Test Item	Unit	MDL	Limit	15			16		
				1st	2nd	3rd	1st	2nd	3rd
Aluminum (Al)	mg/kg	0.2	1	ND	ND	ND	ND	ND	ND
Antimony (Sb)	mg/kg	0.01	0.04	ND	ND	ND	ND	ND	ND
Arsenic (As)	mg/kg	0.01	ND	ND	ND	ND	ND	ND	ND
Barium (Ba)	mg/kg	0.2	1	ND	ND	ND	ND	ND	ND
Cadmium (Cd)	mg/kg	0.002	ND	ND	ND	ND	ND	ND	ND
Chromium (Cr)	mg/kg	0.01	ND	ND	ND	ND	ND	ND	ND
Cobalt (Co)	mg/kg	0.01	0.05	ND	ND	ND	ND	ND	ND
Copper (Cu)	mg/kg	1	5	ND	ND	ND	ND	ND	ND
Iron (Fe)	mg/kg	9.6	48	ND	ND	ND	ND	ND	ND



Lead (Pb)	mg/kg	0.01	ND	ND	ND	ND	ND	ND	ND
Lithium (Li)	mg/kg	0.12	0.6	ND	ND	ND	ND	ND	ND
Manganese (Mn)	mg/kg	0.12	0.6	ND	ND	ND	ND	ND	ND
Mercury (Hg)	mg/kg	0.01	ND	ND	ND	ND	ND	ND	ND
Nickel (Ni)	mg/kg	0.01	0.02	ND	ND	ND	ND	ND	ND
Zinc (Zn)	mg/kg	1	5	ND	ND	ND	ND	ND	ND
Europium (Eu)	mg/kg	0.01	-	ND	ND	ND	ND	ND	ND
Gadolinium (Gd)	mg/kg	0.01	-	ND	ND	ND	ND	ND	ND
Lanthanum (La)	mg/kg	0.01	-	ND	ND	ND	ND	ND	ND
Terbium (Tb)	mg/kg	0.01	-	ND	ND	ND	ND	ND	ND
Sum (Ln)	mg/kg	-	0.05	ND	ND	ND	ND	ND	ND

Test Item	Unit	MDL	Limit	17			18		
				1st	2nd	3rd	1st	2nd	3rd
Aluminum (Al)	mg/kg	0.2	1	ND	ND	ND	ND	ND	ND
Antimony (Sb)	mg/kg	0.01	0.04	ND	ND	ND	ND	ND	ND
Arsenic (As)	mg/kg	0.01	ND	ND	ND	ND	ND	ND	ND
Barium (Ba)	mg/kg	0.2	1	ND	ND	ND	ND	ND	ND
Cadmium (Cd)	mg/kg	0.002	ND	ND	ND	ND	ND	ND	ND
Chromium (Cr)	mg/kg	0.01	ND	ND	ND	ND	ND	ND	ND
Cobalt (Co)	mg/kg	0.01	0.05	ND	ND	ND	ND	ND	ND
Copper (Cu)	mg/kg	1	5	ND	ND	ND	ND	ND	ND
Iron (Fe)	mg/kg	9.6	48	ND	ND	ND	ND	ND	ND
Lead (Pb)	mg/kg	0.01	ND	ND	ND	ND	ND	ND	ND
Lithium (Li)	mg/kg	0.12	0.6	ND	ND	ND	ND	ND	ND
Manganese (Mn)	mg/kg	0.12	0.6	ND	ND	ND	ND	ND	ND
Mercury (Hg)	mg/kg	0.01	ND	ND	ND	ND	ND	ND	ND
Nickel (Ni)	mg/kg	0.01	0.02	ND	ND	ND	ND	ND	ND
Zinc (Zn)	mg/kg	1	5	ND	ND	ND	ND	ND	ND



Europium (Eu)	mg/kg	0.01	-	ND	ND	ND	ND	ND	ND
Gadolinium (Gd)	mg/kg	0.01	-	ND	ND	ND	ND	ND	ND
Lanthanum (La)	mg/kg	0.01	-	ND	ND	ND	ND	ND	ND
Terbium (Tb)	mg/kg	0.01	-	ND	ND	ND	ND	ND	ND
Sum (Ln)	mg/kg	-	0.05	ND	ND	ND	ND	ND	ND

Test Item	Unit	MDL	Limit	19			20		
				1st	2nd	3rd	1st	2nd	3rd
Aluminum (Al)	mg/kg	0.2	1	ND	ND	ND	ND	ND	ND
Antimony (Sb)	mg/kg	0.01	0.04	ND	ND	ND	ND	ND	ND
Arsenic (As)	mg/kg	0.01	ND	ND	ND	ND	ND	ND	ND
Barium (Ba)	mg/kg	0.2	1	ND	ND	ND	ND	ND	ND
Cadmium (Cd)	mg/kg	0.002	ND	ND	ND	ND	ND	ND	ND
Chromium (Cr)	mg/kg	0.01	ND	ND	ND	ND	ND	ND	ND
Cobalt (Co)	mg/kg	0.01	0.05	ND	ND	ND	ND	ND	ND
Copper (Cu)	mg/kg	1	5	ND	ND	ND	ND	ND	ND
Iron (Fe)	mg/kg	9.6	48	ND	ND	ND	ND	ND	ND
Lead (Pb)	mg/kg	0.01	ND	ND	ND	ND	ND	ND	ND
Lithium (Li)	mg/kg	0.12	0.6	ND	ND	ND	ND	ND	ND
Manganese (Mn)	mg/kg	0.12	0.6	ND	ND	ND	ND	ND	ND
Mercury (Hg)	mg/kg	0.01	ND	ND	ND	ND	ND	ND	ND
Nickel (Ni)	mg/kg	0.01	0.02	ND	ND	ND	ND	ND	ND
Zinc (Zn)	mg/kg	1	5	ND	ND	ND	ND	ND	ND
Europium (Eu)	mg/kg	0.01	-	ND	ND	ND	ND	ND	ND
Gadolinium (Gd)	mg/kg	0.01	-	ND	ND	ND	ND	ND	ND
Lanthanum (La)	mg/kg	0.01	-	ND	ND	ND	ND	ND	ND
Terbium (Tb)	mg/kg	0.01	-	ND	ND	ND	ND	ND	ND
Sum (Ln)	mg/kg	-	0.05	ND	ND	ND	ND	ND	ND



Test Item	Unit	MDL	Limit	21			22		
				1st	2nd	3rd	1st	2nd	3rd
Aluminum (Al)	mg/kg	0.2	1	ND	ND	ND	ND	ND	ND
Antimony (Sb)	mg/kg	0.01	0.04	ND	ND	ND	ND	ND	ND
Arsenic (As)	mg/kg	0.01	ND	ND	ND	ND	ND	ND	ND
Barium (Ba)	mg/kg	0.2	1	ND	ND	ND	ND	ND	ND
Cadmium (Cd)	mg/kg	0.002	ND	ND	ND	ND	ND	ND	ND
Chromium (Cr)	mg/kg	0.01	ND	ND	ND	ND	ND	ND	ND
Cobalt (Co)	mg/kg	0.01	0.05	ND	ND	ND	ND	ND	ND
Copper (Cu)	mg/kg	1	5	ND	ND	ND	ND	ND	ND
Iron (Fe)	mg/kg	9.6	48	ND	ND	ND	ND	ND	ND
Lead (Pb)	mg/kg	0.01	ND	ND	ND	ND	ND	ND	ND
Lithium (Li)	mg/kg	0.12	0.6	ND	ND	ND	ND	ND	ND
Manganese (Mn)	mg/kg	0.12	0.6	ND	ND	ND	ND	ND	ND
Mercury (Hg)	mg/kg	0.01	ND	ND	ND	ND	ND	ND	ND
Nickel (Ni)	mg/kg	0.01	0.02	ND	ND	ND	ND	ND	ND
Zinc (Zn)	mg/kg	1	5	ND	ND	ND	ND	ND	ND
Europium (Eu)	mg/kg	0.01	-	ND	ND	ND	ND	ND	ND
Gadolinium (Gd)	mg/kg	0.01	-	ND	ND	ND	ND	ND	ND
Lanthanum (La)	mg/kg	0.01	-	ND	ND	ND	ND	ND	ND
Terbium (Tb)	mg/kg	0.01	-	ND	ND	ND	ND	ND	ND
Sum (Ln)	mg/kg	-	0.05	ND	ND	ND	ND	ND	ND

Test Item	Unit	MDL	Limit	23			24		
				1st	2nd	3rd	1st	2nd	3rd
Aluminum (Al)	mg/kg	0.2	1	ND	ND	ND	ND	ND	ND
Antimony (Sb)	mg/kg	0.01	0.04	ND	ND	ND	ND	ND	ND
Arsenic (As)	mg/kg	0.01	ND	ND	ND	ND	ND	ND	ND
Barium (Ba)	mg/kg	0.2	1	ND	ND	ND	ND	ND	ND



Cadmium (Cd)	mg/kg	0.002	ND	ND	ND	ND	ND	ND	ND
Chromium (Cr)	mg/kg	0.01	ND	ND	ND	ND	ND	ND	ND
Cobalt (Co)	mg/kg	0.01	0.05	ND	ND	ND	ND	ND	ND
Copper (Cu)	mg/kg	1	5	ND	ND	ND	ND	ND	ND
Iron (Fe)	mg/kg	9.6	48	ND	ND	ND	ND	ND	ND
Lead (Pb)	mg/kg	0.01	ND	ND	ND	ND	ND	ND	ND
Lithium (Li)	mg/kg	0.12	0.6	ND	ND	ND	ND	ND	ND
Manganese (Mn)	mg/kg	0.12	0.6	ND	ND	ND	ND	ND	ND
Mercury (Hg)	mg/kg	0.01	ND	ND	ND	ND	ND	ND	ND
Nickel (Ni)	mg/kg	0.01	0.02	ND	ND	ND	ND	ND	ND
Zinc (Zn)	mg/kg	1	5	ND	ND	ND	ND	ND	ND
Europium (Eu)	mg/kg	0.01	-	ND	ND	ND	ND	ND	ND
Gadolinium (Gd)	mg/kg	0.01	-	ND	ND	ND	ND	ND	ND
Lanthanum (La)	mg/kg	0.01	-	ND	ND	ND	ND	ND	ND
Terbium (Tb)	mg/kg	0.01	-	ND	ND	ND	ND	ND	ND
Sum (Ln)	mg/kg	-	0.05	ND	ND	ND	ND	ND	ND

Test Item	Unit	MDL	Limit	25			26		
				1st	2nd	3rd	1st	2nd	3rd
Aluminum (Al)	mg/kg	0.2	1	ND	ND	ND	ND	ND	ND
Antimony (Sb)	mg/kg	0.01	0.04	ND	ND	ND	ND	ND	ND
Arsenic (As)	mg/kg	0.01	ND	ND	ND	ND	ND	ND	ND
Barium (Ba)	mg/kg	0.2	1	ND	ND	ND	ND	ND	ND
Cadmium (Cd)	mg/kg	0.002	ND	ND	ND	ND	ND	ND	ND
Chromium (Cr)	mg/kg	0.01	ND	ND	ND	ND	ND	ND	ND
Cobalt (Co)	mg/kg	0.01	0.05	ND	ND	ND	ND	ND	ND
Copper (Cu)	mg/kg	1	5	ND	ND	ND	ND	ND	ND
Iron (Fe)	mg/kg	9.6	48	ND	ND	ND	ND	ND	ND
Lead (Pb)	mg/kg	0.01	ND	ND	ND	ND	ND	ND	ND
Lithium (Li)	mg/kg	0.12	0.6	ND	ND	ND	ND	ND	ND



Manganese (Mn)	mg/kg	0.12	0.6	ND	ND	ND	ND	ND	ND
Mercury (Hg)	mg/kg	0.01	ND	ND	ND	ND	ND	ND	ND
Nickel (Ni)	mg/kg	0.01	0.02	ND	ND	ND	ND	ND	ND
Zinc (Zn)	mg/kg	1	5	ND	ND	ND	ND	ND	ND
Europium (Eu)	mg/kg	0.01	-	ND	ND	ND	ND	ND	ND
Gadolinium (Gd)	mg/kg	0.01	-	ND	ND	ND	ND	ND	ND
Lanthanum (La)	mg/kg	0.01	-	ND	ND	ND	ND	ND	ND
Terbium (Tb)	mg/kg	0.01	-	ND	ND	ND	ND	ND	ND
Sum (Ln)	mg/kg	-	0.05	ND	ND	ND	ND	ND	ND

Test Item	Unit	MDL	Limit	30		
				1st	2nd	3rd
Aluminum (Al)	mg/kg	0.2	1	ND	ND	ND
Antimony (Sb)	mg/kg	0.01	0.04	ND	ND	ND
Arsenic (As)	mg/kg	0.01	ND	ND	ND	ND
Barium (Ba)	mg/kg	0.2	1	ND	ND	ND
Cadmium (Cd)	mg/kg	0.002	ND	ND	ND	ND
Chromium (Cr)	mg/kg	0.01	ND	ND	ND	ND
Cobalt (Co)	mg/kg	0.01	0.05	ND	ND	ND
Copper (Cu)	mg/kg	1	5	ND	ND	ND
Iron (Fe)	mg/kg	9.6	48	ND	ND	ND
Lead (Pb)	mg/kg	0.01	ND	ND	ND	ND
Lithium (Li)	mg/kg	0.12	0.6	ND	ND	ND
Manganese (Mn)	mg/kg	0.12	0.6	ND	ND	ND
Mercury (Hg)	mg/kg	0.01	ND	ND	ND	ND
Nickel (Ni)	mg/kg	0.01	0.02	ND	ND	ND
Zinc (Zn)	mg/kg	1	5	ND	ND	ND
Europium (Eu)	mg/kg	0.01	-	ND	ND	ND
Gadolinium (Gd)	mg/kg	0.01	-	ND	ND	ND
Lanthanum (La)	mg/kg	0.01	-	ND	ND	ND



Terbium (Tb)	mg/kg	0.01	-	ND	ND	ND
Sum (Ln)	mg/kg	-	0.05	ND	ND	ND

**Note:**

- (1) 1mg/kg=0.0001%;
- (2) ND = Not Detected (<MDL);
- (3) MDL= Method Detection Limit;
- (4) Ln:La, Ce, Pr, Nd, Pm, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu.

**14.Extractable heavy metals (24 heavy metals)**

Test Method: With reference to BS EN 13130-1: 2004, determined by ICP-MS.

Test conditions: 0.5% Citric Acid, 100°C, 2h

Test Item	Unit	MDL	SML	31		
				1st	2nd	3rd
Aluminum (Al)	mg/kg	0.1	5	ND	ND	ND
Antimony (Sb)	mg/kg	0.02	0.04	ND	ND	ND
Arsenic (As)	mg/kg	0.002	0.002	ND	ND	ND
Barium (Ba)	mg/kg	0.1	1.2	ND	ND	ND
Cadmium (Cd)	mg/kg	0.005	0.005	ND	ND	ND
Chromium (Cr)	mg/kg	0.1	1	ND	ND	ND
Cobalt (Co)	mg/kg	0.01	0.02	ND	ND	ND
Copper (Cu)	mg/kg	0.1	4	ND	ND	ND
Iron (Fe)	mg/kg	1	40	ND	ND	ND
Lead (Pb)	mg/kg	0.01	0.01	ND	ND	ND
Lithium (Li)	mg/kg	0.02	0.048	ND	ND	ND
Magnesium (Mg)	mg/kg	0.1	/	ND	ND	ND
Manganese (Mn)	mg/kg	0.1	0.55	ND	ND	ND
Mercury (Hg)	mg/kg	0.003	0.003	ND	ND	ND
Nickel (Ni)	mg/kg	0.05	0.14	ND	ND	ND
Zinc (Zn)	mg/kg	1	5	ND	ND	ND
Silver (Ag)	mg/kg	0.05	0.08	ND	ND	ND
Tin (Sn)	mg/kg	1	100	ND	ND	ND
Vanadium (V)	mg/kg	0.01	0.01	ND	ND	ND
Thallium (Tl)	mg/kg	0.001	0.001	ND	ND	ND
Beryllium (Be)	mg/kg	0.01	0.01	ND	ND	ND



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Molybdenum (Mo)	mg/kg	0.02	0.12	ND	ND	ND
Titanium (Ti)	mg/kg	1	/	ND	ND	ND
Zirconium (Zr)	mg/kg	0.1	2	ND	ND	ND

Note:

(1)1mg/kg=0.0001%;

(2)ND = Not Detected (<MDL);

(3)MDL= Method Detection Limit;

(4)SML= Special Migration Limit.

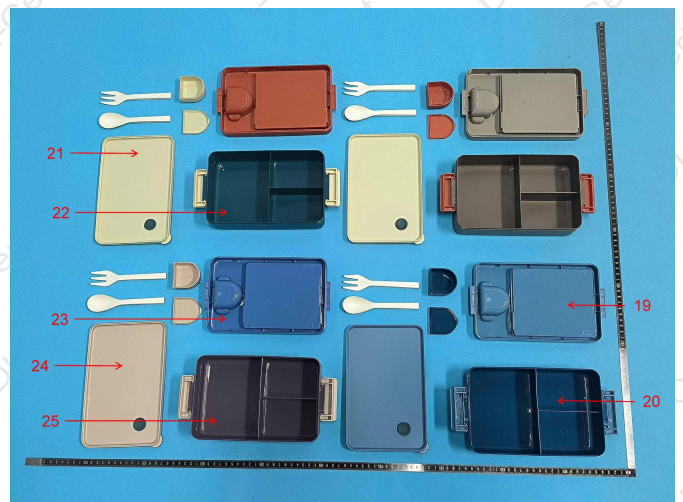
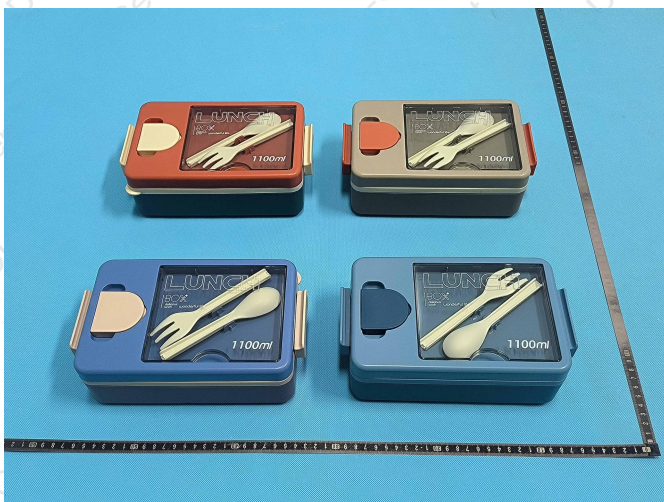
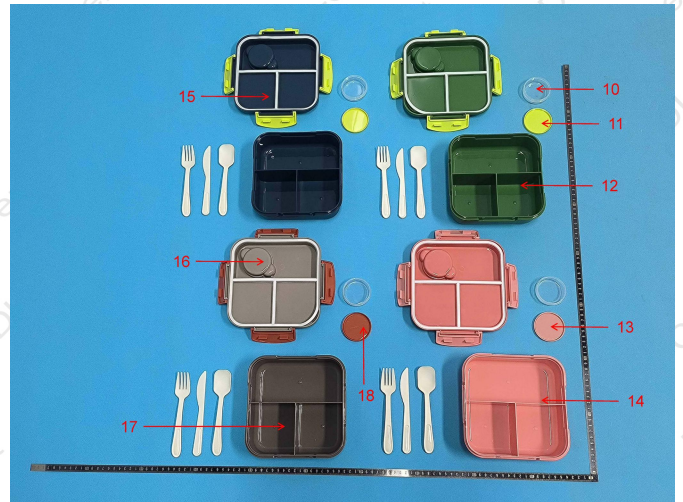
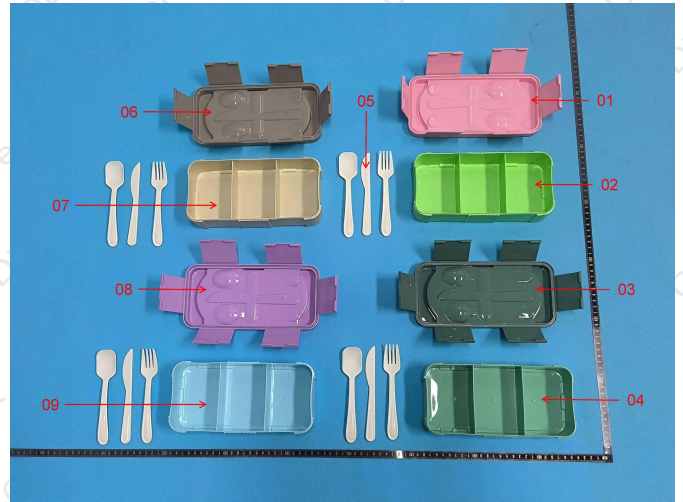
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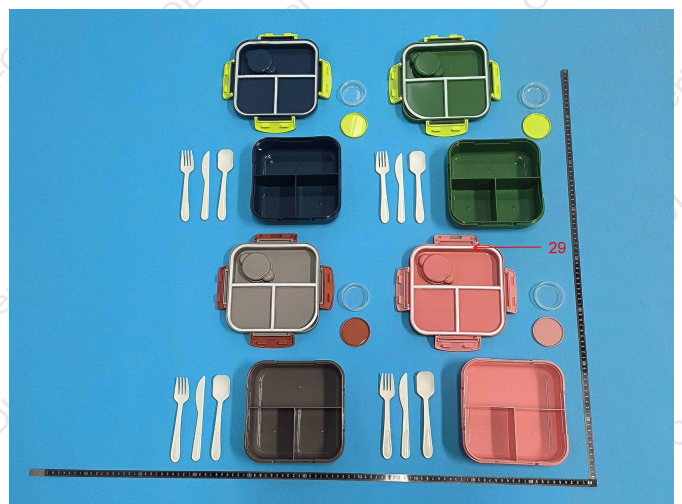
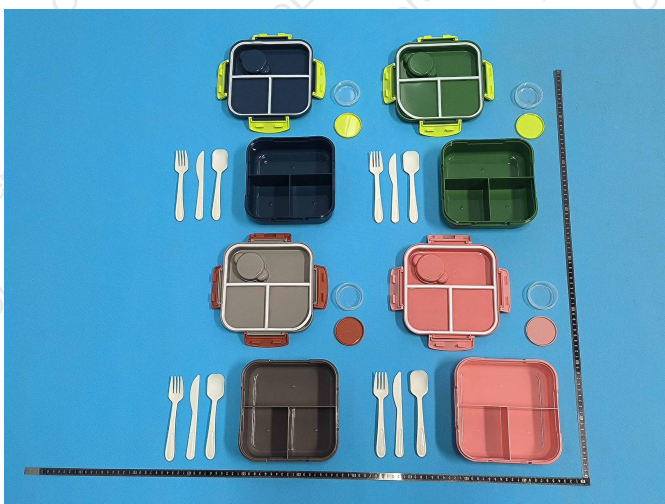
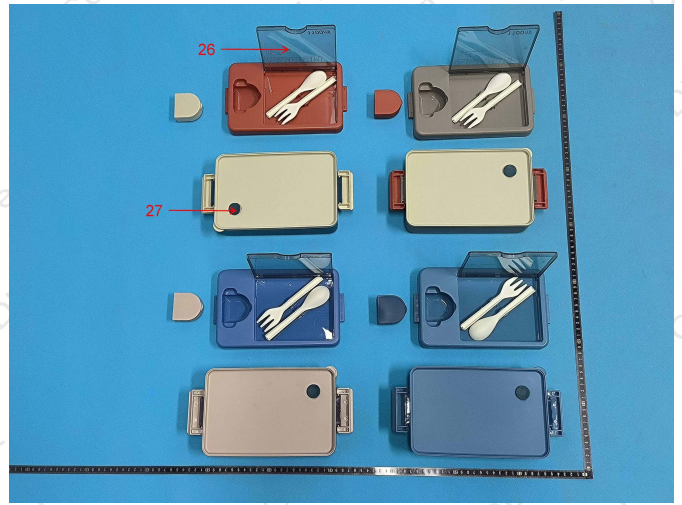
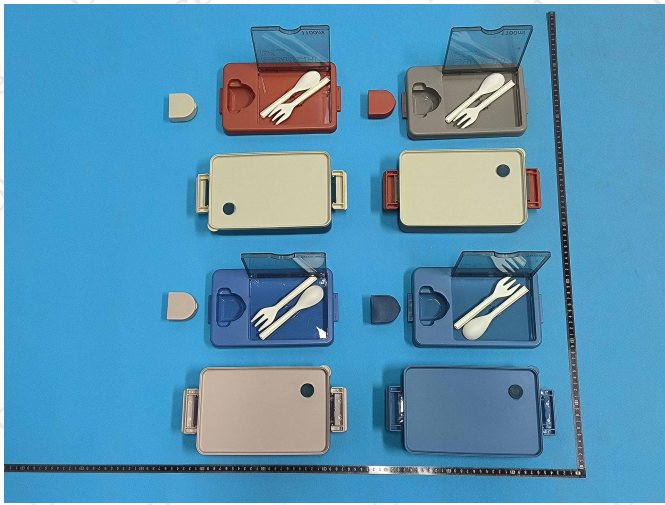
101-201, Comprehensive Building, Tongzhou Electronics Longgang Factory Area, No.1 Baolong Fifth Road,  
Baolong Community, Baolong Street, Longgang District, Shenzhen, China  
Tel: 400-688-3552 Web:www.dl-cert.com Email: [service@dl-cert.com](mailto:service@dl-cert.com)

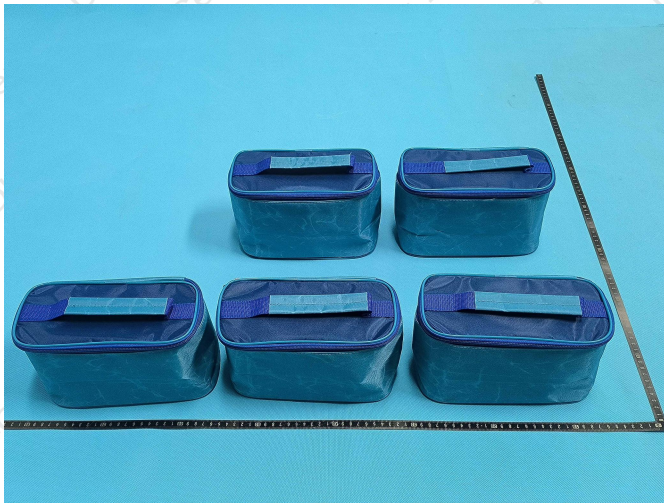
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### Photograph of Sample

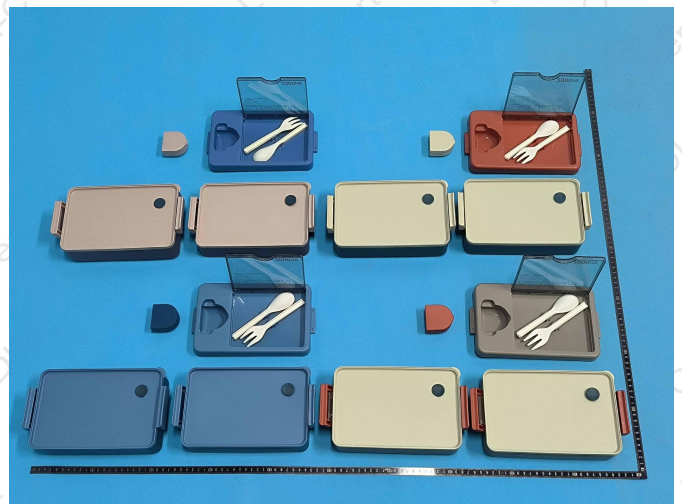
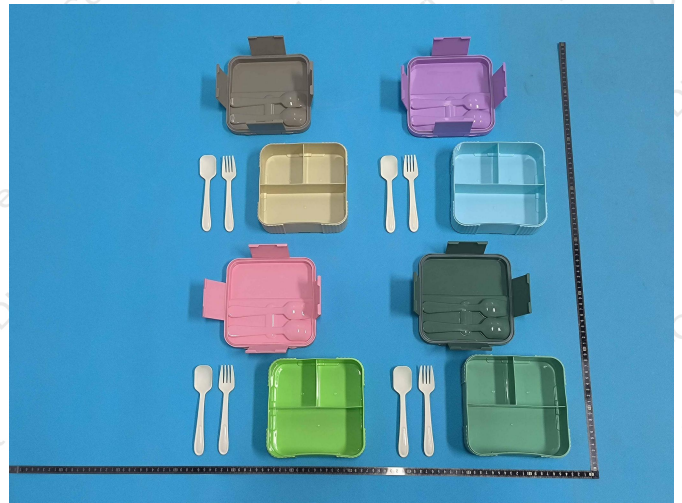






**Addition Photo**





\*\*\*\*\* END OF REPORT \*\*\*\*\*