Test Report

Applicant:	Shantou Ming Xing Tai Plastics Co.. Ltd
Address:	Daxue Road, Shantou City, China
Manufacturer:	Shantou Ming Xing Tai Plastics Co.. Ltd
Address:	Daxue Road, Shantou City, China

Report on the submitted samples said to be:

Product Name:	Lunch box
Trade Mark:	N/A
Model Number:	921, 047, 920, 8929-1, 8929, 8923
Date of Receipt:	Nov. 06, 2025
Date of Test:	Nov. 06, 2025 ~ Nov. 14, 2025
Date of Report:	Nov. 18, 2025
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	Nov. 18, 2025	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) 2020/1245、(EU) 2025/351; European Commission Regulation AP(89)1;European Commission Regulation AP(2004)5; European Commission Regulation CM/Res(2020)9.

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

Test Part Description:

Specimen No.	Description	Material
01	Beige white plastic	plastic
02	Light pink transparent plastic	plastic
03	Light pink plastic	plastic
04	Pink plastic	plastic
05	Light grey transparent plastic	plastic
06	Light grey plastic	plastic
07	Deep grey plastic	plastic
08	Blue transparent plastic	plastic
09	Blue plastic	plastic
10	Deep blue plastic	plastic
11	Light green transparent plastic	plastic
12	Light green plastic	plastic
13	Green plastic	plastic
14	Transparent plastic	plastic
15	Light blue plastic	plastic
16	Peach pink plastic	plastic
17	Deep red plastic	plastic
18	Deep green plastic	plastic
19	Deep cyan plastic	plastic
20	Translucent silicone seal ring	silicone

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℃, 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	19	20	Limit
Sensorial examination odour (Point scale)	0	0	0	0	0	0	0	1	2.5
Sensorial examination taste (Point scale)	0	0	0	0	0	0	0	1	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.Specific Migration of Heavy Metals

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

Test Item	Unit	MDL	Limit	01			02		
				1st	2nd	3rd	1st	2nd	3rd
Aluminum (Al)	mg/kg	0.1	5	ND	ND	ND	ND	ND	ND
Antimony (Sb)	mg/kg	0.02	0.04	ND	ND	ND	ND	ND	ND
Arsenic (As)	mg/kg	0.002	0.002	ND	ND	ND	ND	ND	ND
Barium (Ba)	mg/kg	0.1	1.2	ND	ND	ND	ND	ND	ND
Cadmium (Cd)	mg/kg	0.005	0.005	ND	ND	ND	ND	ND	ND
Chromium (Cr)	mg/kg	0.1	1	ND	ND	ND	ND	ND	ND

Cobalt (Co)	mg/kg	0.01	0.02	ND	ND	ND	ND	ND	ND
Copper (Cu)	mg/kg	0.1	4	ND	ND	ND	ND	ND	ND
Iron (Fe)	mg/kg	1	40	ND	ND	ND	ND	ND	ND
Lead (Pb)	mg/kg	0.01	0.01	ND	ND	ND	ND	ND	ND
Lithium (Li)	mg/kg	0.02	0.048	ND	ND	ND	ND	ND	ND
Manganese (Mn)	mg/kg	0.1	0.55	ND	ND	ND	ND	ND	ND
Mercury (Hg)	mg/kg	0.003	0.003	ND	ND	ND	ND	ND	ND
Nickel (Ni)	mg/kg	0.05	0.14	ND	ND	ND	ND	ND	ND
Zinc (Zn)	mg/kg	1	5	ND	ND	ND	ND	ND	ND
Europium (Eu)	mg/kg	0.01	0.05	ND	ND	ND	ND	ND	ND
Gadolinium (Gd)	mg/kg	0.01	0.05	ND	ND	ND	ND	ND	ND
Lanthanum (La)	mg/kg	0.01	0.05	ND	ND	ND	ND	ND	ND
Terbium (Tb)	mg/kg	0.01	0.05	ND	ND	ND	ND	ND	ND
Sum (Ln)	mg/kg	0.01	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	0.1	5	ND	ND	ND	ND	ND	ND
Antimony (Sb)	mg/kg	0.02	0.04	ND	ND	ND	ND	ND	ND
Arsenic (As)	mg/kg	0.002	0.002	ND	ND	ND	ND	ND	ND
Barium (Ba)	mg/kg	0.1	1.2	ND	ND	ND	ND	ND	ND
Cadmium (Cd)	mg/kg	0.005	0.005	ND	ND	ND	ND	ND	ND
Chromium (Cr)	mg/kg	0.1	1	ND	ND	ND	ND	ND	ND
Cobalt (Co)	mg/kg	0.01	0.02	ND	ND	ND	ND	ND	ND
Copper (Cu)	mg/kg	0.1	4	ND	ND	ND	ND	ND	ND
Iron (Fe)	mg/kg	1	40	ND	ND	ND	ND	ND	ND
Lead (Pb)	mg/kg	0.01	0.01	ND	ND	ND	ND	ND	ND
Lithium (Li)	mg/kg	0.02	0.048	ND	ND	ND	ND	ND	ND
Manganese (Mn)	mg/kg	0.1	0.55	ND	ND	ND	ND	ND	ND
Mercury (Hg)	mg/kg	0.003	0.003	ND	ND	ND	ND	ND	ND

Nickel (Ni)	mg/kg	0.05	0.14	ND	ND	ND	ND	ND	ND
Zinc (Zn)	mg/kg	1	5	ND	ND	ND	ND	ND	ND
Europium (Eu)	mg/kg	0.01	0.05	ND	ND	ND	ND	ND	ND
Gadolinium (Gd)	mg/kg	0.01	0.05	ND	ND	ND	ND	ND	ND
Lanthanum (La)	mg/kg	0.01	0.05	ND	ND	ND	ND	ND	ND
Terbium (Tb)	mg/kg	0.01	0.05	ND	ND	ND	ND	ND	ND
Sum (Ln)	mg/kg	0.01	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	0.1	5	ND	ND	ND	ND	ND	ND
Antimony (Sb)	mg/kg	0.02	0.04	ND	ND	ND	ND	ND	ND
Arsenic (As)	mg/kg	0.002	0.002	ND	ND	ND	ND	ND	ND
Barium (Ba)	mg/kg	0.1	1.2	ND	ND	ND	ND	ND	ND
Cadmium (Cd)	mg/kg	0.005	0.005	ND	ND	ND	ND	ND	ND
Chromium (Cr)	mg/kg	0.1	1	ND	ND	ND	ND	ND	ND
Cobalt (Co)	mg/kg	0.01	0.02	ND	ND	ND	ND	ND	ND
Copper (Cu)	mg/kg	0.1	4	ND	ND	ND	ND	ND	ND
Iron (Fe)	mg/kg	1	40	ND	ND	ND	ND	ND	ND
Lead (Pb)	mg/kg	0.01	0.01	ND	ND	ND	ND	ND	ND
Lithium (Li)	mg/kg	0.02	0.048	ND	ND	ND	ND	ND	ND
Manganese (Mn)	mg/kg	0.1	0.55	ND	ND	ND	ND	ND	ND
Mercury (Hg)	mg/kg	0.003	0.003	ND	ND	ND	ND	ND	ND
Nickel (Ni)	mg/kg	0.05	0.14	ND	ND	ND	ND	ND	ND
Zinc (Zn)	mg/kg	1	5	ND	ND	ND	ND	ND	ND
Europium (Eu)	mg/kg	0.01	0.05	ND	ND	ND	ND	ND	ND
Gadolinium (Gd)	mg/kg	0.01	0.05	ND	ND	ND	ND	ND	ND
Lanthanum (La)	mg/kg	0.01	0.05	ND	ND	ND	ND	ND	ND
Terbium (Tb)	mg/kg	0.01	0.05	ND	ND	ND	ND	ND	ND
Sum (Ln)	mg/kg	0.01	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	0.1	5	ND	ND	ND	ND	ND	ND
Antimony (Sb)	mg/kg	0.02	0.04	ND	ND	ND	ND	ND	ND
Arsenic (As)	mg/kg	0.002	0.002	ND	ND	ND	ND	ND	ND
Barium (Ba)	mg/kg	0.1	1.2	ND	ND	ND	ND	ND	ND
Cadmium (Cd)	mg/kg	0.005	0.005	ND	ND	ND	ND	ND	ND
Chromium (Cr)	mg/kg	0.1	1	ND	ND	ND	ND	ND	ND
Cobalt (Co)	mg/kg	0.01	0.02	ND	ND	ND	ND	ND	ND
Copper (Cu)	mg/kg	0.1	4	ND	ND	ND	ND	ND	ND
Iron (Fe)	mg/kg	1	40	ND	ND	ND	ND	ND	ND
Lead (Pb)	mg/kg	0.01	0.01	ND	ND	ND	ND	ND	ND
Lithium (Li)	mg/kg	0.02	0.048	ND	ND	ND	ND	ND	ND
Manganese (Mn)	mg/kg	0.1	0.55	ND	ND	ND	ND	ND	ND
Mercury (Hg)	mg/kg	0.003	0.003	ND	ND	ND	ND	ND	ND
Nickel (Ni)	mg/kg	0.05	0.14	ND	ND	ND	ND	ND	ND
Zinc (Zn)	mg/kg	1	5	ND	ND	ND	ND	ND	ND
Europium (Eu)	mg/kg	0.01	0.05	ND	ND	ND	ND	ND	ND
Gadolinium (Gd)	mg/kg	0.01	0.05	ND	ND	ND	ND	ND	ND
Lanthanum (La)	mg/kg	0.01	0.05	ND	ND	ND	ND	ND	ND
Terbium (Tb)	mg/kg	0.01	0.05	ND	ND	ND	ND	ND	ND
Sum (Ln)	mg/kg	0.01	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	0.1	5	ND	ND	ND	ND	ND	ND
Antimony (Sb)	mg/kg	0.02	0.04	ND	ND	ND	ND	ND	ND
Arsenic (As)	mg/kg	0.002	0.002	ND	ND	ND	ND	ND	ND
Barium (Ba)	mg/kg	0.1	1.2	ND	ND	ND	ND	ND	ND
Cadmium (Cd)	mg/kg	0.005	0.005	ND	ND	ND	ND	ND	ND

Chromium (Cr)	mg/kg	0.1	1	ND	ND	ND	ND	ND	ND
Cobalt (Co)	mg/kg	0.01	0.02	ND	ND	ND	ND	ND	ND
Copper (Cu)	mg/kg	0.1	4	ND	ND	ND	ND	ND	ND
Iron (Fe)	mg/kg	1	40	ND	ND	ND	ND	ND	ND
Lead (Pb)	mg/kg	0.01	0.01	ND	ND	ND	ND	ND	ND
Lithium (Li)	mg/kg	0.02	0.048	ND	ND	ND	ND	ND	ND
Manganese (Mn)	mg/kg	0.1	0.55	ND	ND	ND	ND	ND	ND
Mercury (Hg)	mg/kg	0.003	0.003	ND	ND	ND	ND	ND	ND
Nickel (Ni)	mg/kg	0.05	0.14	ND	ND	ND	ND	ND	ND
Zinc (Zn)	mg/kg	1	5	ND	ND	ND	ND	ND	ND
Europium (Eu)	mg/kg	0.01	0.05	ND	ND	ND	ND	ND	ND
Gadolinium (Gd)	mg/kg	0.01	0.05	ND	ND	ND	ND	ND	ND
Lanthanum (La)	mg/kg	0.01	0.05	ND	ND	ND	ND	ND	ND
Terbium (Tb)	mg/kg	0.01	0.05	ND	ND	ND	ND	ND	ND
Sum (Ln)	mg/kg	0.01	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	0.1	5	ND	ND	ND	ND	ND	ND
Antimony (Sb)	mg/kg	0.02	0.04	ND	ND	ND	ND	ND	ND
Arsenic (As)	mg/kg	0.002	0.002	ND	ND	ND	ND	ND	ND
Barium (Ba)	mg/kg	0.1	1.2	ND	ND	ND	ND	ND	ND
Cadmium (Cd)	mg/kg	0.005	0.005	ND	ND	ND	ND	ND	ND
Chromium (Cr)	mg/kg	0.1	1	ND	ND	ND	ND	ND	ND
Cobalt (Co)	mg/kg	0.01	0.02	ND	ND	ND	ND	ND	ND
Copper (Cu)	mg/kg	0.1	4	ND	ND	ND	ND	ND	ND
Iron (Fe)	mg/kg	1	40	ND	ND	ND	ND	ND	ND
Lead (Pb)	mg/kg	0.01	0.01	ND	ND	ND	ND	ND	ND
Lithium (Li)	mg/kg	0.02	0.048	ND	ND	ND	ND	ND	ND
Manganese (Mn)	mg/kg	0.1	0.55	ND	ND	ND	ND	ND	ND
Mercury (Hg)	mg/kg	0.003	0.003	ND	ND	ND	ND	ND	ND

Nickel (Ni)	mg/kg	0.05	0.14	ND	ND	ND	ND	ND	ND
Zinc (Zn)	mg/kg	1	5	ND	ND	ND	ND	ND	ND
Europium (Eu)	mg/kg	0.01	0.05	ND	ND	ND	ND	ND	ND
Gadolinium (Gd)	mg/kg	0.01	0.05	ND	ND	ND	ND	ND	ND
Lanthanum (La)	mg/kg	0.01	0.05	ND	ND	ND	ND	ND	ND
Terbium (Tb)	mg/kg	0.01	0.05	ND	ND	ND	ND	ND	ND
Sum (Ln)	mg/kg	0.01	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	0.1	5	ND	ND	ND	ND	ND	ND
Antimony (Sb)	mg/kg	0.02	0.04	ND	ND	ND	ND	ND	ND
Arsenic (As)	mg/kg	0.002	0.002	ND	ND	ND	ND	ND	ND
Barium (Ba)	mg/kg	0.1	1.2	ND	ND	ND	ND	ND	ND
Cadmium (Cd)	mg/kg	0.005	0.005	ND	ND	ND	ND	ND	ND
Chromium (Cr)	mg/kg	0.1	1	ND	ND	ND	ND	ND	ND
Cobalt (Co)	mg/kg	0.01	0.02	ND	ND	ND	ND	ND	ND
Copper (Cu)	mg/kg	0.1	4	ND	ND	ND	ND	ND	ND
Iron (Fe)	mg/kg	1	40	ND	ND	ND	ND	ND	ND
Lead (Pb)	mg/kg	0.01	0.01	ND	ND	ND	ND	ND	ND
Lithium (Li)	mg/kg	0.02	0.048	ND	ND	ND	ND	ND	ND
Manganese (Mn)	mg/kg	0.1	0.55	ND	ND	ND	ND	ND	ND
Mercury (Hg)	mg/kg	0.003	0.003	ND	ND	ND	ND	ND	ND
Nickel (Ni)	mg/kg	0.05	0.14	ND	ND	ND	ND	ND	ND
Zinc (Zn)	mg/kg	1	5	ND	ND	ND	ND	ND	ND
Europium (Eu)	mg/kg	0.01	0.05	ND	ND	ND	ND	ND	ND
Gadolinium (Gd)	mg/kg	0.01	0.05	ND	ND	ND	ND	ND	ND
Lanthanum (La)	mg/kg	0.01	0.05	ND	ND	ND	ND	ND	ND
Terbium (Tb)	mg/kg	0.01	0.05	ND	ND	ND	ND	ND	ND
Sum (Ln)	mg/kg	0.01	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	0.1	5	ND	ND	ND	ND	ND	ND
Antimony (Sb)	mg/kg	0.02	0.04	ND	ND	ND	ND	ND	ND
Arsenic (As)	mg/kg	0.002	0.002	ND	ND	ND	ND	ND	ND
Barium (Ba)	mg/kg	0.1	1.2	ND	ND	ND	ND	ND	ND
Cadmium (Cd)	mg/kg	0.005	0.005	ND	ND	ND	ND	ND	ND
Chromium (Cr)	mg/kg	0.1	1	ND	ND	ND	ND	ND	ND
Cobalt (Co)	mg/kg	0.01	0.02	ND	ND	ND	ND	ND	ND
Copper (Cu)	mg/kg	0.1	4	ND	ND	ND	ND	ND	ND
Iron (Fe)	mg/kg	1	40	ND	ND	ND	ND	ND	ND
Lead (Pb)	mg/kg	0.01	0.01	ND	ND	ND	ND	ND	ND
Lithium (Li)	mg/kg	0.02	0.048	ND	ND	ND	ND	ND	ND
Manganese (Mn)	mg/kg	0.1	0.55	ND	ND	ND	ND	ND	ND
Mercury (Hg)	mg/kg	0.003	0.003	ND	ND	ND	ND	ND	ND
Nickel (Ni)	mg/kg	0.05	0.14	ND	ND	ND	ND	ND	ND
Zinc (Zn)	mg/kg	1	5	ND	ND	ND	ND	ND	ND
Europium (Eu)	mg/kg	0.01	0.05	ND	ND	ND	ND	ND	ND
Gadolinium (Gd)	mg/kg	0.01	0.05	ND	ND	ND	ND	ND	ND
Lanthanum (La)	mg/kg	0.01	0.05	ND	ND	ND	ND	ND	ND
Terbium (Tb)	mg/kg	0.01	0.05	ND	ND	ND	ND	ND	ND
Sum (Ln)	mg/kg	0.01	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	0.1	5	ND	ND	ND	ND	ND	ND
Antimony (Sb)	mg/kg	0.02	0.04	ND	ND	ND	ND	ND	ND
Arsenic (As)	mg/kg	0.002	0.002	ND	ND	ND	ND	ND	ND
Barium (Ba)	mg/kg	0.1	1.2	ND	ND	ND	ND	ND	ND
Cadmium (Cd)	mg/kg	0.005	0.005	ND	ND	ND	ND	ND	ND
Chromium (Cr)	mg/kg	0.1	1	ND	ND	ND	ND	ND	ND
Cobalt (Co)	mg/kg	0.01	0.02	ND	ND	ND	ND	ND	ND

Copper (Cu)	mg/kg	0.1	4	ND	ND	ND	ND	ND	ND
Iron (Fe)	mg/kg	1	40	ND	ND	ND	ND	ND	ND
Lead (Pb)	mg/kg	0.01	0.01	ND	ND	ND	ND	ND	ND
Lithium (Li)	mg/kg	0.02	0.048	ND	ND	ND	ND	ND	ND
Manganese (Mn)	mg/kg	0.1	0.55	ND	ND	ND	ND	ND	ND
Mercury (Hg)	mg/kg	0.003	0.003	ND	ND	ND	ND	ND	ND
Nickel (Ni)	mg/kg	0.05	0.14	ND	ND	ND	ND	ND	ND
Zinc (Zn)	mg/kg	1	5	ND	ND	ND	ND	ND	ND
Europium (Eu)	mg/kg	0.01	0.05	ND	ND	ND	ND	ND	ND
Gadolinium (Gd)	mg/kg	0.01	0.05	ND	ND	ND	ND	ND	ND
Lanthanum (La)	mg/kg	0.01	0.05	ND	ND	ND	ND	ND	ND
Terbium (Tb)	mg/kg	0.01	0.05	ND	ND	ND	ND	ND	ND
Sum (Ln)	mg/kg	0.01	0.05	ND	ND	ND	ND	ND	ND

Test Item	**Unit**	**MDL**	**Limit**	**19**		
				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
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
Europium (Eu)	mg/kg	0.01	0.05	ND	ND	ND
Gadolinium (Gd)	mg/kg	0.01	0.05	ND	ND	ND

Lanthanum (La)	mg/kg	0.01	0.05	ND	ND	ND
Terbium (Tb)	mg/kg	0.01	0.05	ND	ND	ND
Sum (Ln)	mg/kg	0.01	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.

3.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℃,5h	5	5	5	5	5	5	>4.5
3% Acetic acid	50℃,5h	5	5	5	5	5	5	>4.5
15% Ethanol	50℃,5h	5	5	5	5	5	5	>4.5
Olive oil	50℃,5h	5	5	5	5	5	5	>4.5

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

Simulant Used	Test condition	13	14	15	16	17	18	19	20	Limit
Distilled water	50℃,5h	5	5	5	5	5	5	5	5	>4.5
3% Acetic acid	50℃,5h	5	5	5	5	5	5	5	5	>4.5
15% Ethanol	50℃,5h	5	5	5	5	5	5	5	5	>4.5
Olive oil	50℃,5h	5	5	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

4.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℃	mg/dm^2	10	ND	ND	ND	ND	ND	ND
10% Ethanol	2.0h	70℃	mg/dm^2	10	ND	ND	ND	ND	ND	ND
20% Ethanol	2.0h	70℃	mg/dm^2	10	ND	ND	ND	ND	ND	ND
95% Ethanol	2.0h	60℃	mg/dm^2	10	ND	ND	ND	ND	ND	ND
Isooctane	0.5h	40℃	mg/dm^2	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℃	mg/dm^2	10	ND	ND	ND	ND	ND	ND
10% Ethanol	2.0h	70℃	mg/dm^2	10	ND	ND	ND	ND	ND	ND
20% Ethanol	2.0h	70℃	mg/dm^2	10	ND	ND	ND	ND	ND	ND
95% Ethanol	2.0h	60℃	mg/dm^2	10	ND	ND	ND	ND	ND	ND
Isooctane	0.5h	40℃	mg/dm^2	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℃	mg/dm^2	10	ND	ND	ND	ND	ND	ND
10% Ethanol	2.0h	70℃	mg/dm^2	10	ND	ND	ND	ND	ND	ND
20% Ethanol	2.0h	70℃	mg/dm^2	10	ND	ND	ND	ND	ND	ND
95% Ethanol	2.0h	60℃	mg/dm^2	10	ND	ND	ND	ND	ND	ND
Isooctane	0.5h	40℃	mg/dm^2	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℃	mg/dm^2	10	ND	ND	ND	ND	ND	ND
10% Ethanol	2.0h	70℃	mg/dm^2	10	ND	ND	ND	ND	ND	ND
20% Ethanol	2.0h	70℃	mg/dm^2	10	ND	ND	ND	ND	ND	ND
95% Ethanol	2.0h	60℃	mg/dm^2	10	ND	ND	ND	ND	ND	ND
Isooctane	0.5h	40℃	mg/dm^2	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℃	mg/dm²	10	ND	ND	ND	ND	ND	ND
10% Ethanol	2.0h	70℃	mg/dm²	10	ND	ND	ND	ND	ND	ND
20% Ethanol	2.0h	70℃	mg/dm²	10	ND	ND	ND	ND	ND	ND
95% Ethanol	2.0h	60℃	mg/dm²	10	ND	ND	ND	ND	ND	ND
Isooctane	0.5h	40℃	mg/dm²	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℃	mg/dm²	10	ND	ND	ND	ND	ND	ND
10% Ethanol	2.0h	70℃	mg/dm²	10	ND	ND	ND	ND	ND	ND
20% Ethanol	2.0h	70℃	mg/dm²	10	ND	ND	ND	ND	ND	ND
95% Ethanol	2.0h	60℃	mg/dm²	10	ND	ND	ND	ND	ND	ND
Isooctane	0.5h	40℃	mg/dm²	10	ND	ND	ND	ND	ND	ND

Simulant Used	Time	Temperature	Unit	Limit	13			14		
					1st	2nd	3rd	1st	2nd	3rd
3% Acetic acid	2.0h	70℃	mg/dm²	10	ND	ND	ND	ND	ND	ND
10% Ethanol	2.0h	70℃	mg/dm²	10	ND	ND	ND	ND	ND	ND
20% Ethanol	2.0h	70℃	mg/dm²	10	ND	ND	ND	ND	ND	ND
95% Ethanol	2.0h	60℃	mg/dm²	10	ND	ND	ND	ND	ND	ND
Isooctane	0.5h	40℃	mg/dm²	10	ND	ND	ND	ND	ND	ND

Simulant Used	Time	Temperature	Unit	Limit	15			16		
					1st	2nd	3rd	1st	2nd	3rd
3% Acetic acid	2.0h	70℃	mg/dm²	10	ND	ND	ND	ND	ND	ND
10% Ethanol	2.0h	70℃	mg/dm²	10	ND	ND	ND	ND	ND	ND
20% Ethanol	2.0h	70℃	mg/dm²	10	ND	ND	ND	ND	ND	ND
95% Ethanol	2.0h	60℃	mg/dm²	10	ND	ND	ND	ND	ND	ND
Isooctane	0.5h	40℃	mg/dm²	10	ND	ND	ND	ND	ND	ND

Simulant Used	Time	Temperature	Unit	Limit	17			18		
					1st	2nd	3rd	1st	2nd	3rd
3% Acetic acid	2.0h	70℃	mg/dm²	10	ND	ND	ND	ND	ND	ND
10% Ethanol	2.0h	70℃	mg/dm²	10	ND	ND	ND	ND	ND	ND
20% Ethanol	2.0h	70℃	mg/dm²	10	ND	ND	ND	ND	ND	ND

95% Ethanol	2.0h	60℃	mg/dm²	10	ND	ND	ND	ND	ND	ND
Isooctane	0.5h	40℃	mg/dm²	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/dm²	10	ND	ND	ND	ND	ND	ND
10% Ethanol	2.0h	70℃	mg/dm²	10	ND	ND	ND	ND	ND	ND
20% Ethanol	2.0h	70℃	mg/dm²	10	ND	ND	ND	ND	ND	ND
95% Ethanol	2.0h	60℃	mg/dm²	10	ND	ND	ND	ND	ND	ND
Isooctane	0.5h	40℃	mg/dm²	10	ND	ND	ND	ND	ND	ND

Note:

(1) mg/dm² = milligram per square decimeter;

(2) < =less than;

(3) ND = Not Detected (<Limit).

5.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	Limit
Naphthalene	mg/kg	0.1	ND	ND	ND	ND	Absent
Phentherene	mg/kg	0.1	ND	ND	ND	ND	Absent
Anthracene	mg/kg	0.1	ND	ND	ND	ND	Absent
Fluoranthen	mg/kg	0.1	ND	ND	ND	ND	Absent
Pyrene	mg/kg	0.1	ND	ND	ND	ND	Absent
Benzo[a]anthracene	mg/kg	0.1	ND	ND	ND	ND	Absent
Chrysene	mg/kg	0.1	ND	ND	ND	ND	Absent
Benzo[b]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	Absent
Benzo[k]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	Absent
Benzo[a]pyrene	mg/kg	0.1	ND	ND	ND	ND	Absent
Indeno[1,2,3-cd]pyrene	mg/kg	0.1	ND	ND	ND	ND	Absent
Dibenzo[a,h]anthracene	mg/kg	0.1	ND	ND	ND	ND	Absent
Benzo[g,h,i]pyrene	mg/kg	0.1	ND	ND	ND	ND	Absent
Benzo[j]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	Absent

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

Item	Unit	MDL	05	06	07	08	Limit
Naphthalene	mg/kg	0.1	ND	ND	ND	ND	Absent
Phentherene	mg/kg	0.1	ND	ND	ND	ND	Absent
Anthracene	mg/kg	0.1	ND	ND	ND	ND	Absent
Fluoranthen	mg/kg	0.1	ND	ND	ND	ND	Absent
Pyrene	mg/kg	0.1	ND	ND	ND	ND	Absent
Benzo[a]anthracene	mg/kg	0.1	ND	ND	ND	ND	Absent
Chrysene	mg/kg	0.1	ND	ND	ND	ND	Absent
Benzo[b]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	Absent
Benzo[k]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	Absent
Benzo[a]pyrene	mg/kg	0.1	ND	ND	ND	ND	Absent
Indeno[1,2,3-cd]pyrene	mg/kg	0.1	ND	ND	ND	ND	Absent
Dibenzo[a,h]anthracene	mg/kg	0.1	ND	ND	ND	ND	Absent
Benzo[g,h,i]pyrene	mg/kg	0.1	ND	ND	ND	ND	Absent
Benzo[j]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	Absent
Benzo[e]pyrene	mg/kg	0.1	ND	ND	ND	ND	Absent
Total of 15 PAHs	mg/kg	/	ND	ND	ND	ND	/

Item	Unit	MDL	09	10	11	12	Limit
Naphthalene	mg/kg	0.1	ND	ND	ND	ND	Absent
Phentherene	mg/kg	0.1	ND	ND	ND	ND	Absent
Anthracene	mg/kg	0.1	ND	ND	ND	ND	Absent
Fluoranthen	mg/kg	0.1	ND	ND	ND	ND	Absent
Pyrene	mg/kg	0.1	ND	ND	ND	ND	Absent
Benzo[a]anthracene	mg/kg	0.1	ND	ND	ND	ND	Absent
Chrysene	mg/kg	0.1	ND	ND	ND	ND	Absent
Benzo[b]fluoranthene	mg/kg	0.1	ND	ND	ND	ND	Absent

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

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

Item	**Unit**	**MDL**	**17**	**18**	**19**	**20**	**Limit**
Naphthalene	mg/kg	0.1	ND	ND	ND	ND	Absent
Phentherene	mg/kg	0.1	ND	ND	ND	ND	Absent

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

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

6.VOM-BfR Besummung von fluchtigen Verbindungen in Bedarfsgegenstanden 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 (%)	20
200℃，4h	0.1	0.5	0.3

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

7.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℃, 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'-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)	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'-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)**	**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'-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)**	**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'-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)	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'-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)	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'-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)	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'-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)	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'-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

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

8.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	20
Lead (Pb)	mg/kg	5	100	ND
Cadmium (Cd)	mg/kg	5	100	ND
Zinc (Zn)	mg/kg	5	100	ND
Platinum (Pt)	mg/kg	5	50	ND

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

9.Peroxides Value

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

Test Item	Limit	20	Conclusion
Peroxides value	Absent	Absent	PASS

10.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	20
Distilled water	Reflux for 5 hours	%	0.5	<0.1
3% Acetic acid	Reflux for 5 hours	%	0.5	<0.1
10% Ethanol	Reflux for 5 hours	%	0.5	<0.1

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

11.Organic Tin content

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

Test Item	Unit	MDL	Limit	20
Dibutyltin (DBT)	mg/kg	0.01	1	ND
Tributyltin (TBT)	mg/kg	0.01	1	ND
Triphenyltin (TPT)	mg/kg	0.01	1	ND
Dioctyltin（DOT）	mg/kg	0.01	1	ND
Monobutyltin (MBT)	mg/kg	0.01	1	ND
Monooctyltin (MOT)	mg/kg	0.01	1	ND
Tetrabutyltin (TTBT)	mg/kg	0.01	1	ND

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

12.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℃, 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
Phentherene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Fluoranthen	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
Phentherene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Fluoranthen	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
Phentherene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Fluoranthen	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
Phentherene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent

Fluoranthen	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
Phentherene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Fluoranthen	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
Phentherene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Fluoranthen	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
Phentherene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Fluoranthen	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
Phentherene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Fluoranthen	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

Phentherene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Fluoranthen	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
Phentherene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Anthracene	mg/kg	0.1	ND	ND	ND	ND	ND	ND	Absent
Fluoranthen	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.

13.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	19	20
Bisphenol A	mg/kg	0.1	Absent	ND	ND	ND	ND	ND	ND	ND	ND

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

14.Specific Migration of - Hexene

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

Simulant Used	Time	Temperature	Unit	Limit	01			02		
					1st	2nd	3rd	1st	2nd	3rd
3% Acetic acid	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND
10% Ethanol	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND
Olive oil	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND

Simulant Used	Time	Temperature	Unit	Limit	03			04		
					1st	2nd	3rd	1st	2nd	3rd

3% Acetic acid	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND
10% Ethanol	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND
Olive oil	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND

Simulant Used	Time	Temperature	Unit	Limit	05			06		
					1st	2nd	3rd	1st	2nd	3rd
3% Acetic acid	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND
10% Ethanol	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND
Olive oil	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND

Simulant Used	Time	Temperature	Unit	Limit	07			08		
					1st	2nd	3rd	1st	2nd	3rd
3% Acetic acid	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND
10% Ethanol	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND
Olive oil	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND

Simulant Used	Time	Temperature	Unit	Limit	09			10		
					1st	2nd	3rd	1st	2nd	3rd
3% Acetic acid	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND
10% Ethanol	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND
Olive oil	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND

Simulant Used	Time	Temperature	Unit	Limit	11			12		
					1st	2nd	3rd	1st	2nd	3rd
3% Acetic acid	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND
10% Ethanol	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND
Olive oil	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND

Simulant Used	Time	Temperature	Unit	Limit	13			14		
					1st	2nd	3rd	1st	2nd	3rd
3% Acetic acid	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND
10% Ethanol	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND
Olive oil	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND

Simulant Used	Time	Temperature	Unit	Limit	15			16		
					1st	2nd	3rd	1st	2nd	3rd
3% Acetic acid	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND
10% Ethanol	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND
Olive oil	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND

Simulant Used	Time	Temperature	Unit	Limit	17			18		
					1st	2nd	3rd	1st	2nd	3rd
3% Acetic acid	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND
10% Ethanol	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND
Olive oil	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND

Simulant Used	Time	Temperature	Unit	Limit	19		
					1st	2nd	3rd
3% Acetic acid	2h	70℃	mg/kg	3	ND	ND	ND
10% Ethanol	2h	70℃	mg/kg	3	ND	ND	ND
Olive oil	2h	70℃	mg/kg	3	ND	ND	ND

Note:

(1) 1mg/kg=0.0001%;

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

(3) MDL= Method Detection Limit.

15.Specific Migration of - Octene

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

Simulant Used	Time	Temperature	Unit	Limit	01			02		
					1st	2nd	3rd	1st	2nd	3rd
3% Acetic acid	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND
10% Ethanol	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND
Olive oil	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND

Simulant Used	Time	Temperature	Unit	Limit	03			04		
					1st	2nd	3rd	1st	2nd	3rd

3% Acetic acid	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND
10% Ethanol	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND
Olive oil	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND

Simulant Used	Time	Temperature	Unit	Limit	05			06		
					1st	2nd	3rd	1st	2nd	3rd
3% Acetic acid	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND
10% Ethanol	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND
Olive oil	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND

Simulant Used	Time	Temperature	Unit	Limit	07			08		
					1st	2nd	3rd	1st	2nd	3rd
3% Acetic acid	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND
10% Ethanol	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND
Olive oil	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND

Simulant Used	Time	Temperature	Unit	Limit	09			10		
					1st	2nd	3rd	1st	2nd	3rd
3% Acetic acid	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND
10% Ethanol	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND
Olive oil	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND

Simulant Used	Time	Temperature	Unit	Limit	11			12		
					1st	2nd	3rd	1st	2nd	3rd
3% Acetic acid	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND
10% Ethanol	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND
Olive oil	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND

Simulant Used	Time	Temperature	Unit	Limit	13			14		
					1st	2nd	3rd	1st	2nd	3rd
3% Acetic acid	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND

10% Ethanol	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND
Olive oil	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND

Simulant Used	Time	Temperature	Unit	Limit	15			16		
					1st	2nd	3rd	1st	2nd	3rd
3% Acetic acid	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND
10% Ethanol	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND
Olive oil	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND

Simulant Used	Time	Temperature	Unit	Limit	17			18		
					1st	2nd	3rd	1st	2nd	3rd
3% Acetic acid	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND
10% Ethanol	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND
Olive oil	2h	70℃	mg/kg	3	ND	ND	ND	ND	ND	ND

Simulant Used	Time	Temperature	Unit	Limit	19		
					1st	2nd	3rd
3% Acetic acid	2h	70℃	mg/kg	3	ND	ND	ND
10% Ethanol	2h	70℃	mg/kg	3	ND	ND	ND
Olive oil	2h	70℃	mg/kg	3	ND	ND	ND

Note:

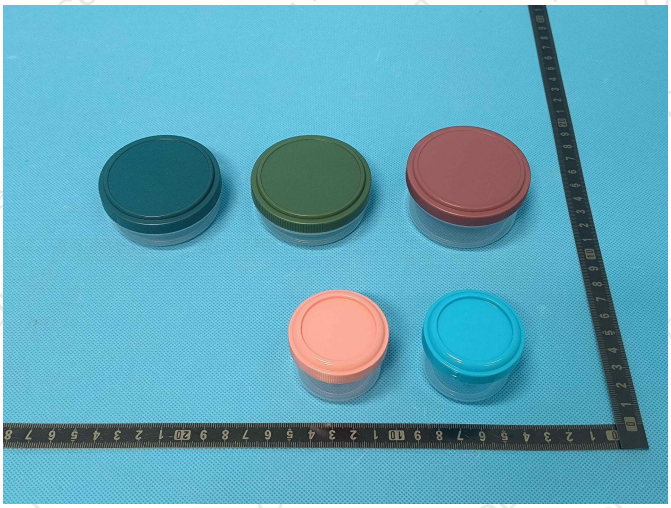
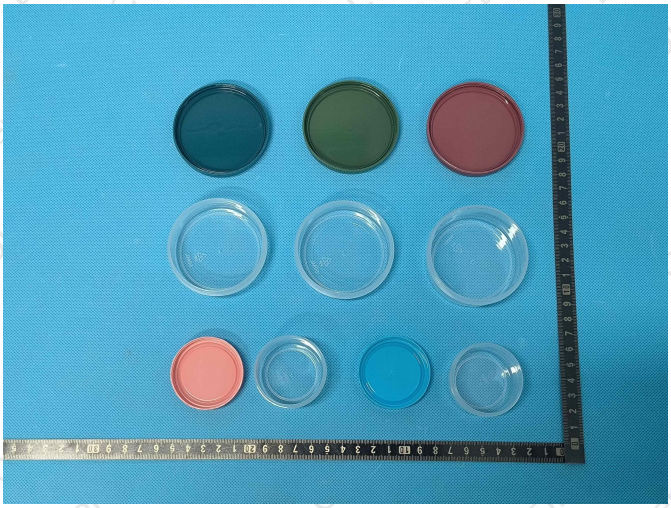
(1) 1mg/kg=0.0001%;

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

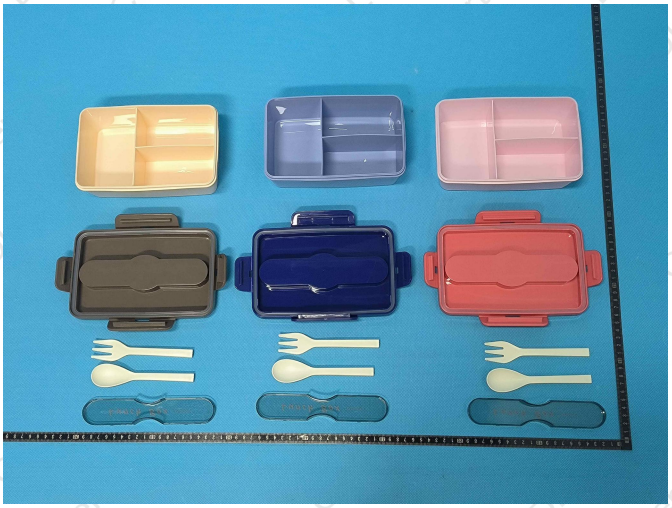
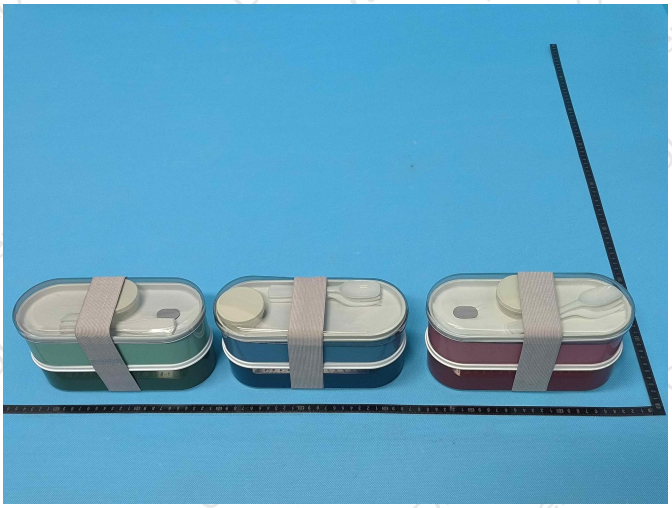
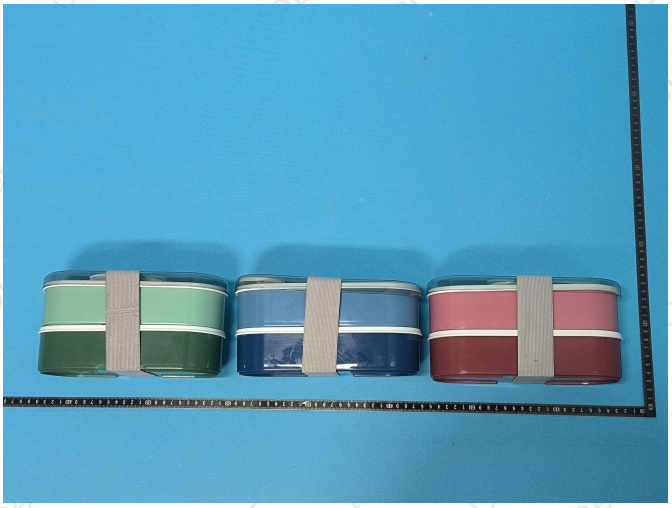
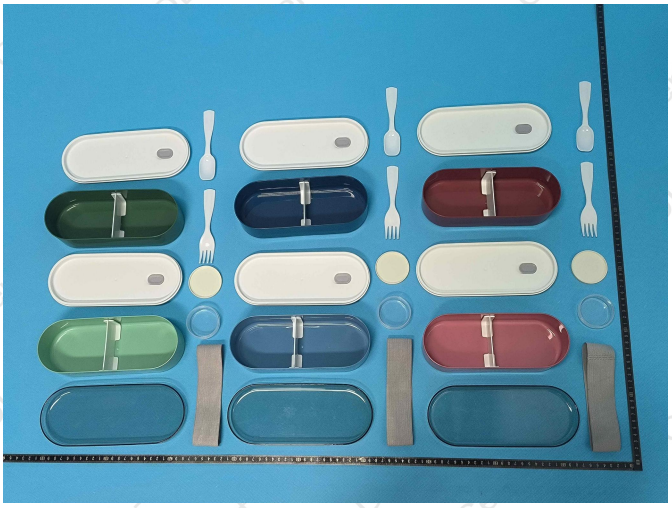
(3) MDL= Method Detection Limit.

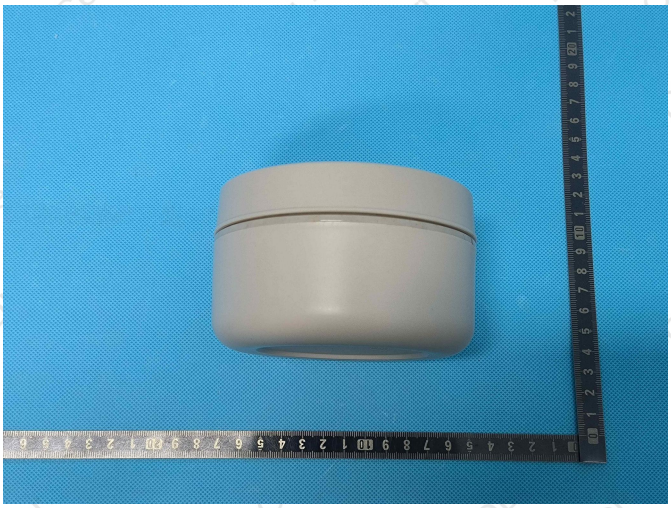
Photograph of Sample

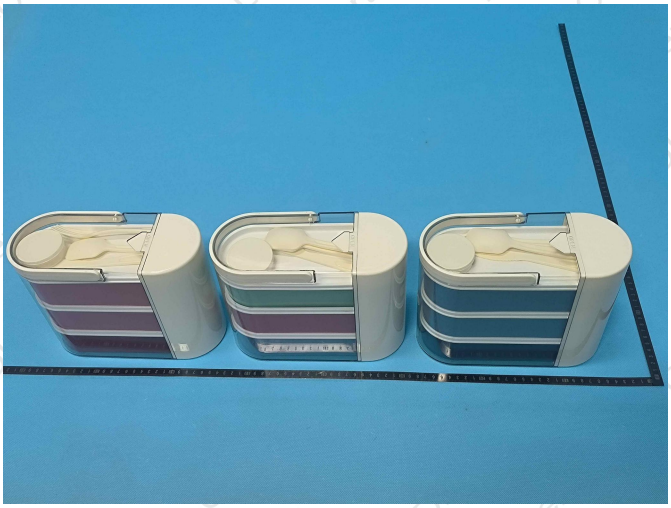
Addition Photo

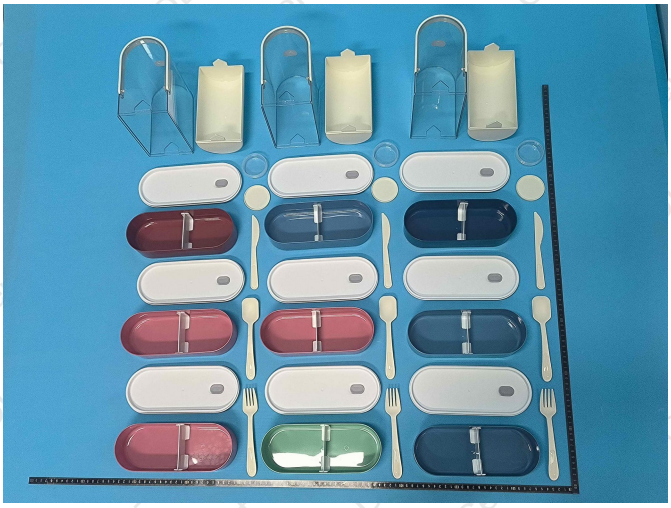










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