

TEST REPORT

APPLICANT : Mid Ocean Brands B.V.

ADDRESS : 7/F, Kings Tower, 111 King Lam Street, Cheung Sha Wan,
Kowloon, Hong Kong.

SAMPLE DESCRIPTION : Double wall vaccum flask

MODEL NO. : MO8314

VENDOR CODE : 118449

MATERIAL NO. : Stainless steel

BUYER : Mid Ocean Brands B.V.

PRODUCT MATERIAL : PP ABS Silicone Stainless steel

COUNTRY OF ORIGIN : China

COUNTRY OF DESTINATION : EU

SAMPLE RECEIVED DATE : 21-Jul-2023

SAMPLE RESUBMISSION DATE : 03-Aug-2023

TURN AROUND TIME : 21-Jul-2023 to 14-Aug-2023

The following test item(s) was/were performed on submitted sample(s) and/or component(s) confirmed by applicant

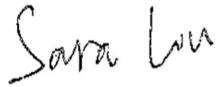
TEST REQUESTED	TEST METHOD/REGULATION	RESULT
Overall Migration	LFGB Section 30, 31 and BfR recommendation, Regulation (EU) No. 10/2011 and its amendments	Pass
Overall Migration-Silicone	French Décret 2007-766 with amendments and French Arrêté du 25 Novembre 1992	Pass
Overall Migration-ABS	Regulation (EU) No. 10/2011 and its amendments, Fiche MCDA n°3 (V03-09/09/2021)	Pass
Volatile Organic Matter (VOM)	French Décret 2007-766 with amendments and French Arrêté du 25 Novembre 1992	Pass
Peroxide value	French Décret 2007-766 with amendments and French Arrêté du 25 Novembre 1992	Pass
Specific migration of Organotin (as tin)	French Décret 2007-766 with amendments and French Arrêté du 25 Novembre 1992	Pass
Specific Release of Heavy Metals	EU Resolution CM/Res (2013)9	Pass
Specific Migration of Heavy Metal	LFGB Section 30, 31 and BfR recommendation, Regulation (EU) No. 10/2011 and its amendments	Pass
Specific Migration of Acrylonitrile	LFGB Section 30, 31 and BfR recommendation, Regulation (EU) No. 10/2011 and its amendments	Pass
Specific Migration of Bisphenol A	LFGB Section 30, 31 and BfR recommendation, Regulation (EU) No. 10/2011 and its amendments	Pass
Phthalates Content	REACH Annex XVII, Entry 51 & 52	Pass
Total Cadmium Content	REACH Annex XVII, Entry 23	Pass
Total Lead Content	REACH Annex XVII, Entry 63	Pass
Polycyclic Aromatic Hydrocarbons (PAHs)	REACH Annex XVII, Entry 50	Pass
Total Bisphenol A (BPA) Content	EPA 3550C:2007, EPA 8321B:2007	See Test Result
Total Bisphenol A (BPA) Content	French Law No. 2012/1442, and French Décret 2007-766 and its amendments.	Pass
Specific Migration of Primary Aromatic Amines	LFGB Section 30 and 31	Pass

Samples are obtained by express delivery, Results obtained refer only to samples, products or material received in Laboratory, as described in point related to sample description, and tested in conditions shown in present report. Eurofins Product Testing Service (Shanghai) Co., Ltd ensures that this job has been performed according to our Quality System and complying contract and legal conditions. If you happen to have any comments, please do it by sending email to info.hz@eurofins.com and referring to this report number. Reproduction of this document is only valid if it is done completely and under the written permission of Eurofins Product Testing Service (Shanghai) Co., Ltd. If you happen to have any complaints, please do it by sending email to chinacomplaint@eurofins.com and referring to this report number.

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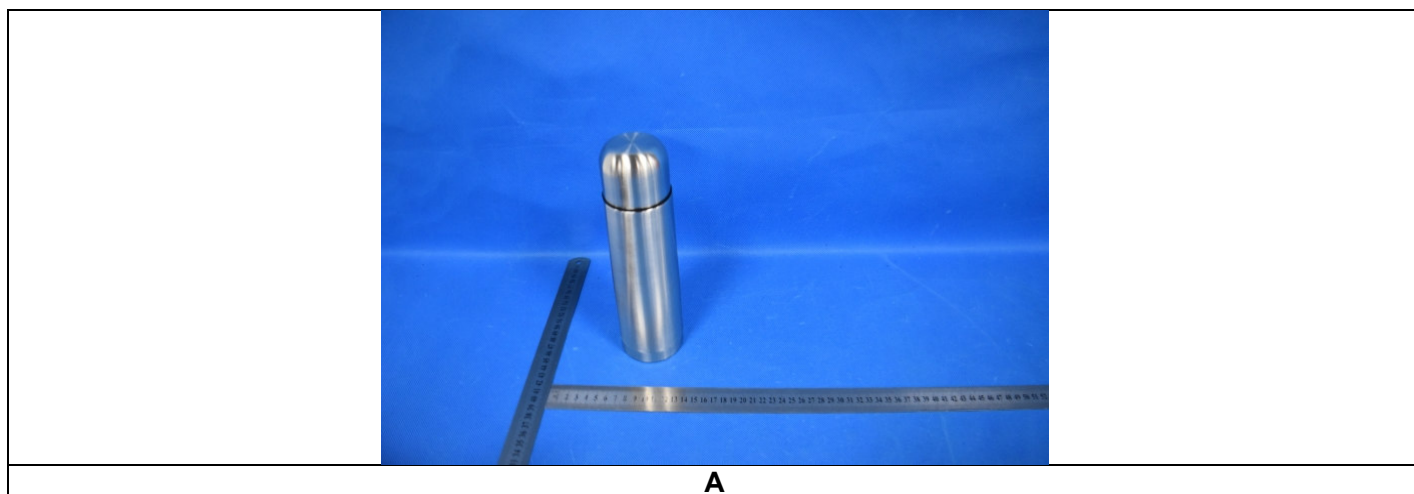
***** FOR FURTHER DETAILS, PLEASE REFER TO THE FOLLOWING PAGE(S) *****

Signed for and on behalf of Eurofins Product Testing Service (Shanghai) Co., Ltd Hangzhou Branch



Sara Liu
Lab Manager

SAMPLE PHOTO(S)



A

EFHZ23073200-CG-01

TO BE CONTINUED

REFERENCE SAMPLE PHOTO(S)



The reference samples have not been tested in current report, but according to customer's request, the picture has also been included. For sample tested in current report, please refer to "sample photo(s)".

TO BE CONTINUED

COMPONENT LIST

Component No.	Component	Sample No.
1	Black PP lid	A
2	White ABS lid	A
3	Semitransparent silicone ring	A
4	Silver stainless steel 304(inner)	A
5	Silver stainless steel 201(outer)	A

TO BE CONTINUED

TEST RESULT

Overall Migration

Test Request: In accordance with German Food, Articles of Daily Use and Feed Code of September 1, 2005 (LFGB), Section 30 and 31, and BfR recommendation, Commission Regulation (EU) No. 10/2011 and its amendments.

Test Method: With reference to EN1186-1:2002 for selection of conditions and test methods; EN1186-3:2022 overall migration in evaporable simulants by total immersion method;

Simulant used	Time	Temperature	Max. Permissible Limit	Result		
				1		
				1 st Test	2 nd Test	3 rd Test
3% Acetic Acid (W/V) Aqueous Solution	2hours	70°C	10 mg/dm ²	<3.0 mg/dm ²	<3.0 mg/dm ²	<3.0 mg/dm ²
50% Ethanol (V/V) Aqueous Solution	2hours	70°C	10 mg/dm ²	<3.0 mg/dm ²	<3.0 mg/dm ²	<3.0 mg/dm ²

Simulant used	Time	Temperature	Max. Permissible Limit	Result		
				2		
				1 st Test	2 nd Test	3 rd Test
3% Acetic Acid (W/V) Aqueous Solution	2hours	70°C	10 mg/dm ²	<3.0 mg/dm ²	<3.0 mg/dm ²	<3.0 mg/dm ²
50% Ethanol (V/V) Aqueous Solution	2hours	70°C	10 mg/dm ²	<3.0 mg/dm ²	<3.0 mg/dm ²	<3.0 mg/dm ²

Note:

- (1) mg/dm²=milligram per square decimeter
- (2) °C=degree Celsius
- (3) <= less than
- (4) Test condition & simulant were specified by client.

TO BE CONTINUED

TEST RESULT

Overall Migration-Silicone

Test Request: In accordance with French Décret 2007-766 and its amendments , and French Arrêté du 25 Novembre 1992.

Test Method: With reference to EN1186-1:2002 for selection of conditions and test methods; EN1186-3:2022 overall migration in evaporable simulants by total immersion method;

Simulant used	Time	Temperature	Max. Permissible Limit	Result		
				3		
				1 st Test	2 nd Test	3 rd Test
3% Acetic Acid (W/V)	2hours	70°C	10 mg/dm ²	<3.0 mg/dm ²	<3.0 mg/dm ²	<3.0 mg/dm ²
50% Ethanol (V/V)	2hours	70°C	10 mg/dm ²	<3.0 mg/dm ²	<3.0 mg/dm ²	<3.0 mg/dm ²

Remark:

(1) Test condition & simulant were specified by client.

Overall Migration-ABS

Test Requested: In accordance with Commission Regulation (EU) No. 10/2011 and its amendments, and DGCCRF Food contact suitability of organic materials from synthetic materials – Fiche MCDA n°3 (V03-09/09/2021).

Test Method: With reference to EN1186-1:2002 for selection of conditions and test methods; EN1186-3:2022 overall migration in evaporable simulants by total immersion method;

Simulant used	Time	Temperature	Max. Permissible Limit (mg/dm ²)	Result (mg/dm ²)		
				2		
				1 st Test	2 nd Test	3 rd Test
3% Acetic Acid (W/V) Aqueous Solution	2hours	70°C	10	<3.0	<3.0	<3.0
50% Ethanol (V/V) Aqueous Solution	2hours	70°C	10	<3.0	<3.0	<3.0

Remark:

- (1) mg/dm² =milligram per square decimeter
- (2) Test condition & simulant were specified by client.

TO BE CONTINUED

TEST RESULT

Volatile Organic Matter (VOM)

Test Request: In accordance with French Décret 2007-766 and its amendments , and French Arrêté du 25 Novembre 1992.

Test Method: With reference to French Arrêté du November 1992 Annex III.

Test Item(s)	Max. Permissible Limit	Unit	MDL	Result
				3
Volatile organic matter (VOM)	0.5	%	0.10	0.16

Peroxide value

Test Request: In accordance with French Décret 2007-766 and its amendments, and French Arrêté du 25 Novembre 1992 for silicone materials.

Test Method: With reference to European pharmacopoeia, 9.0 Appendix X F. Peroxide Value method A.

Test Item(s)	Limit	Result
		3
Peroxide Value	Absent	Absent

Specific migration of Organotin (as tin)

Test Requested: In accordance with French Décret 2007-766 and its amendments, and French Arrêté du 25 Novembre 1992 for silicone materials.

Test Method: With reference to EN 13130-1:2004, analysis was performed by ICP-MS.

Simulant Used: 3% Acetic Acid(W/V) Aqueous Solution

Test Condition: 70°C 2hours

Test Item(s)	Limit	Unit	MDL	Result		
				3		
				1 st Test	2 nd Test	3 rd Test
Organotin (as tin)	0.1	mg/kg	0.01	ND	ND	ND

Remark:

- (1) mg/kg = milligram per kilogram
- (2) MDL = method detection limit
- (3) ND = not detected (<MDL)

TO BE CONTINUED

TEST RESULT

Specific Release of Heavy Metals

Test Request: In accordance with Resolution CM/Res (2013)9 on metals and alloys used in food contact materials and articles.
 Test Method: With reference to Resolution CM/Res(2013)9, analysis was performed by ICP-MS.
 Simulant Used: 0.5% citric acid
 Test Condition: 70°C 2hours

Test Item(s)	Unit	MDL	Result			
			4			
			1 st + 2 nd Migration		3 rd Migration	
			Result	7xSRL ^{*2}	Result	SRL ^{*1}
Aluminum (Al)	mg/kg	0.5	ND	35	ND	5
Antimony (Sb)	mg/kg	0.01	ND	0.28	ND	0.04
Chromium (Cr)	mg/kg	0.05	ND	1.75	ND	0.25
Cobalt (Co)	mg/kg	0.005	ND	0.14	ND	0.02
Copper (Cu)	mg/kg	0.5	ND	28	ND	4
Iron (Fe)	mg/kg	5	ND	280	ND	40
Manganese (Mn)	mg/kg	0.2	ND	12.6	ND	1.8
Molybdenum (Mo)	mg/kg	0.01	ND	0.84	ND	0.12
Nickel (Ni)	mg/kg	0.01	ND	0.98	ND	0.14
Silver (Ag)	mg/kg	0.01	ND	0.56	ND	0.08
Tin ^{*3} (Sn)	mg/kg	5	ND	700	ND	100
Vanadium (V)	mg/kg	0.001	ND	0.07	ND	0.01
Zinc (Zn)	mg/kg	0.5	ND	35	ND	5
Arsenic (As)	mg/kg	0.0005	ND	0.014	ND	0.002
Barium (Ba)	mg/kg	0.1	ND	8.4	ND	1.2
Beryllium (Be)	mg/kg	0.001	ND	0.07	ND	0.01
Cadmium (Cd)	mg/kg	0.001	ND	0.035	ND	0.005
Lead (Pb)	mg/kg	0.001	ND	0.07	ND	0.01
Lithium (Li)	mg/kg	0.005	ND	0.336	ND	0.048
Mercury (Hg)	mg/kg	0.0005	ND	0.021	ND	0.003
Thallium (Tl)	mg/kg	0.00005	ND	0.0007	ND	0.0001
Magnesium(Mg)	mg/kg	0.1	ND	-	ND	-
Titanium(Ti)	mg/kg	0.1	ND	-	ND	-

Note:

- (1) mg/kg = milligram per kilogram
- (2) MDL = method detection limit
- (3) ND = not detected (<MDL)
- (4) SRL = Specific Release Limit
- (5) *1 Compliance is established on the result from the third migration test for repeated used articles.
- (6) *2 Meantime, the sum of the results of the first and second tests should not exceed 7 times the SRL
- (7) *3 Except in field of application under Regulation (EC) No.1881/2006.(canned food container)
- (8) Test condition & simulant were specified by client.

TO BE CONTINUED

TEST RESULT

Specific Migration of Heavy Metal

Test Requested: To determine the Specific Migration of Heavy Metal in accordance with German Food, Articles of Daily Use and Feed Code of September 1, 2005 (LFGB), Section 30 and 31, and BfR recommendation, Commission Regulation (EU) No. 10/2011 and its amendments.

Test Method: With reference to Regulation (EU) 10/2011 for selection of test condition and EN 13130-1:2004 for test preparation method; analysis was performed by ICP-MS.

Simulant used : 3% Acetic Acid (W/V) Aqueous Solution

Test condition : 70°C 2hours

Test Item(s)	Max. Permissible limit	Unit	MDL	Test Result		
				1		
				1 st Test	2 nd Test	3 rd Test
Barium(Ba)	1	mg/kg	0.25	ND	ND	ND
Cobalt(Co)	0.05	mg/kg	0.05	ND	ND	ND
Copper(Cu)	5	mg/kg	0.25	ND	ND	ND
Iron(Fe)	48	mg/kg	0.25	ND	ND	ND
Lithium(Li)	0.6	mg/kg	0.5	ND	ND	ND
Manganese(Mn)	0.6	mg/kg	0.05	ND	ND	ND
Zinc(Zn)	5	mg/kg	0.5	ND	ND	ND
Aluminum(Al)	1	mg/kg	0.1	ND	ND	ND
Nickel(Ni)	0.02	mg/kg	0.01	ND	ND	ND
Antimony(Sb)	0.04	mg/kg	0.01	ND	ND	ND
Arsenic(As)	ND	mg/kg	0.01	ND	ND	ND
Cadmium(Cd)	ND	mg/kg	0.002	ND	ND	ND
Chromium(Cr)	ND	mg/kg	0.01	ND	ND	ND
Lead(Pb)	ND	mg/kg	0.01	ND	ND	ND
Mercury(Hg)	ND	mg/kg	0.01	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 of all lanthanide substances	0.05	mg/kg	-	ND	ND	ND

TO BE CONTINUED

TEST RESULT

Test Item(s)	Max. Permissible limit	Unit	MDL	Test Result		
				2		
				1 st Test	2 nd Test	3 rd Test
Barium(Ba)	1	mg/kg	0.25	ND	ND	ND
Cobalt(Co)	0.05	mg/kg	0.05	ND	ND	ND
Copper(Cu)	5	mg/kg	0.25	ND	ND	ND
Iron(Fe)	48	mg/kg	0.25	ND	ND	ND
Lithium(Li)	0.6	mg/kg	0.5	ND	ND	ND
Manganese(Mn)	0.6	mg/kg	0.05	ND	ND	ND
Zinc(Zn)	5	mg/kg	0.5	ND	ND	ND
Aluminum(Al)	1	mg/kg	0.1	ND	ND	ND
Nickel(Ni)	0.02	mg/kg	0.01	ND	ND	ND
Antimony(Sb)	0.04	mg/kg	0.01	ND	ND	ND
Arsenic(As)	ND	mg/kg	0.01	ND	ND	ND
Cadmium(Cd)	ND	mg/kg	0.002	ND	ND	ND
Chromium(Cr)	ND	mg/kg	0.01	ND	ND	ND
Lead(Pb)	ND	mg/kg	0.01	ND	ND	ND
Mercury(Hg)	ND	mg/kg	0.01	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 of all lanthanide substances	0.05	mg/kg	-	ND	ND	ND

Remark:

- (1) mg/kg = milligram per kilogram
- (2) MDL = Method Detection Limit
- (3) ND = Not detected, less than MDL
- (4) Test condition & simulant were specified by client.

TO BE CONTINUED

TEST RESULT

Specific Migration of Acrylonitrile

Test Request: To determine the Specific Migration of Acrylonitrile in accordance with German Food, Articles of Daily Use and Feed Code of September 1, 2005 (LFGB), Section 30 and 31, and BfR recommendation, Commission Regulation (EU) No. 10/2011 and its amendments.

Test Method: With reference to Regulation (EU) 10/2011 for selection of test condition and EN 13130-3:2004 for test method, analysis was performed by HD-GC-MS.

Simulant Used: 3% Acetic Acid (W/V) Aqueous Solution

Test Condition: 70°C 2hours

Test Item(s)	Unit	Limit	MDL	Result		
				2		
				1 st Test	2 nd Test	3 rd Test
Acrylonitrile	mg/kg	Not Detectable	0.01	ND	ND	ND

Remark:

1. mg/kg = milligram per kilogram
2. ND = not detected, less than MDL
3. MDL = method detection limit
4. Test condition & simulant were specified by client

TO BE CONTINUED

TEST RESULT

Specific Migration of Bisphenol A

Test Request: To determine Specific Migration of Bisphenol A in accordance with German Food, Articles of Daily Use and Feed Code of September 1, 2005 (LFGB), Section 30 and 31, and BfR recommendation, Commission Regulation (EU) No. 10/2011 and its amendments.

Test Method: With reference to EN 13130-1:2004, analysis was performed by LC-MS.

Simulant Used: 3% Acetic Acid (W/V) Aqueous Solution

Test Condition: 70°C 2hours

Test Item(s)	Unit	Limit	MDL	Result		
				3		
				1 st Test	2 nd Test	3 rd Test
2,2-bis(4-hydroxyphenyl) Propane (Bisphenol A)	mg/kg	0.05	0.01	ND	ND	ND

Remark:

1. mg/kg = milligram per kilogram
2. ND = not detected, less than MDL
3. MDL = method detection limit
4. Test condition & simulant were specified by client

TO BE CONTINUED

TEST RESULT

Phthalates Content

Test Request: Phthalates content as specified in entry 51&52 of annex XVII of REACH Regulation (EC) No 1907/2006 and its amendment Commission Regulation (EU) 2018/2005.

Test Method: EPA 3550C:2007, EPA 8270E:2018, solvent extraction and quantification by GC-MS.

Test Item(s)	CAS No.	Unit	Limit	MDL	Result	
					3	
Dibutylphthalate (DBP)	84-74-2	%	-	0.005	ND	
Benzyl butyl phthalate (BBP)	85-68-7	%	-	0.005	ND	
Diethylhexylphthalate (DEHP)	117-81-7	%	-	0.005	ND	
Di-isobutyl phthalate (DiBP)	84-69-5	%	-	0.005	ND	
Sum of (DEHP+DBP+BBP+DIBP)	-	%	0.1	-	ND	
Di-n-octylphthalate (DNOP)	117-84-0	%	-	0.005	ND	
Diisononyl phthalate (DINP)	28553-12-0	%	-	0.005	ND	
Diisodecyl phthalate (DIDP)	26761-40-0	%	-	0.005	ND	
Sum (DNOP + DINP + DIDP)	-	%	0.1	-	ND	

Test Item(s)	CAS No.	Unit	Limit	MDL	Result	
					1	2
Dibutylphthalate (DBP)	84-74-2	%	-	0.005	ND	ND
Benzyl butyl phthalate (BBP)	85-68-7	%	-	0.005	ND	ND
Diethylhexylphthalate (DEHP)	117-81-7	%	-	0.005	ND	ND
Di-isobutyl phthalate (DiBP)	84-69-5	%	-	0.005	ND	ND
Sum of (DEHP+DBP+BBP+DIBP)	-	%	0.1	-	ND	ND
Di-n-octylphthalate (DNOP)	117-84-0	%	-	0.005	ND	ND
Diisononyl phthalate (DINP)	28553-12-0	%	-	0.005	ND	ND
Diisodecyl phthalate (DIDP)	26761-40-0	%	-	0.005	ND	ND
Sum (DNOP + DINP + DIDP)	-	%	0.1	-	ND	ND

Remarks:

1 mg/kg = 1 ppm = 0.0001%

MDL = method detection limit

ND = Not detected, less than MDL

“- “ = Not Regulated

TO BE CONTINUED

TEST RESULT

Total Cadmium Content

Test Request: Total cadmium content as specified in Commission Regulation (EU) 2016/217 amending entry 23 of Annex XVII of REACH Regulation (EC) No 1907/2006.

Test Method: EPA 3050B:1996, EPA 3052:1996, EN 1122:2001 Method B, acid digestion method was used and total cadmium content was determined by ICP-OES.

Test Item(s)	Unit	Limit	MDL	Result		
				3		
Total Cadmium	mg/kg	100	5	ND		

Test Item(s)	Unit	Limit	MDL	Result	
				1	2
Total Cadmium	mg/kg	100	5	ND	ND

Remark:

mg/kg = milligram per kilogram

MDL = method detection limit

ND = Not detected, less than MDL

Total Lead Content

Test Request: Total lead content as specified in entry 63 of annex XVII of REACH Regulation (EC) No 1907/2006 and its amendment Regulation (EU) No 2015/628.

Test Method: EPA 3050B:1996, EPA 3051A:2007, EPA 3052:1996
Acid digestion/ microwave digestion method was used and total lead content was determined by ICP-OES.

Test Item(s)	Unit	Limit	MDL	Result		
				4		
Total Lead	mg/kg	500	10	ND		

Test Item(s)	Unit	Limit	MDL	Result		
				1	2	5
Total Lead	mg/kg	500	10	ND	ND	ND

Remark:

mg/kg = milligram per kilogram

MDL = method detection limit

ND = Not detected, less than MDL

TO BE CONTINUED

TEST RESULT

Polycyclic Aromatic Hydrocarbons (PAHs)

Test Request: Polycyclic Aromatic Hydrocarbons (PAHs) content as specified in Regulation (EU) 2015/326 amending entry 50 of Annex XVII of REACH Regulation (EC) No 1907/2006.

Test Method: Solvent extraction and quantification by gas chromatography-mass selective detection (GC-MS) with respect to AfPS GS 2019:01 PAK

Test Item(s)	CAS No.	Unit	Limit	MDL	Result	
					3	
Benzo(a)anthracene	56-55-3	mg/kg	1	0.2	ND	
Chrysene	218-01-9	mg/kg	1	0.2	ND	
Benzo(b)fluoranthene	205-99-2	mg/kg	1	0.2	ND	
Benzo(j)fluoranthene	205-82-3	mg/kg	1	0.2	ND	
Benzo(k)fluoranthene	207-08-9	mg/kg	1	0.2	ND	
Benzo(a)pyrene	50-32-8	mg/kg	1	0.2	ND	
Dibenzo(a,h)anthracene	53-70-3	mg/kg	1	0.2	ND	
Benzo(e)pyrene	192-97-2	mg/kg	1	0.2	ND	

Test Item(s)	CAS No.	Unit	Limit	MDL	Result	
					1	2
Benzo(a)anthracene	56-55-3	mg/kg	1	0.2	ND	ND
Chrysene	218-01-9	mg/kg	1	0.2	ND	ND
Benzo(b)fluoranthene	205-99-2	mg/kg	1	0.2	ND	ND
Benzo(j)fluoranthene	205-82-3	mg/kg	1	0.2	ND	ND
Benzo(k)fluoranthene	207-08-9	mg/kg	1	0.2	ND	ND
Benzo(a)pyrene	50-32-8	mg/kg	1	0.2	ND	ND
Dibenzo(a,h)anthracene	53-70-3	mg/kg	1	0.2	ND	ND
Benzo(e)pyrene	192-97-2	mg/kg	1	0.2	ND	ND

Remarks:

mg/kg = milligram per kilogram

MDL = method detection limit

ND = Not detected, less than MDL

TO BE CONTINUED

TEST RESULT

Total Bisphenol A (BPA) Content

Test Method: With reference to EPA 3550C:2007, EPA 8321B:2007, solvent extraction and determination by LC-MS.

Test Item(s)	CAS No.	Unit	MDL	Result	
				1	2
Bisphenol A	80-05-7	mg/kg	0.1	ND	ND

Remarks:

mg/kg = milligram per kilogram

MDL = method detection limit

ND = Not detected, less than MDL

Total Bisphenol A (BPA) Content

Test Request: In accordance with French Décret 2007-766 and its amendments, and French Law No. 2012/1442.

Test Method: With reference to EPA 3550C:2007, EPA 8321B:2007, solvent extraction and determination by LC-MS.

Test Item(s)	CAS No.	Unit	Limit	MDL	Result
					3
Bisphenol A	80-05-7	mg/kg	ND	0.1	ND

Remarks:

mg/kg = milligram per kilogram

MDL = method detection limit

ND = Not detected, less than MDL

TO BE CONTINUED

TEST RESULT

Specific Migration of Primary Aromatic Amines

Test Request: Specific migration of primary aromatic amines as specified in German Food, Articles of Daily Use and Feed Code of September 1, 2005 (LFGB), Section 30 and 31, and BfR recommendation.
 Test Method: With reference to EN 13130-1:2004 for sample preparation, analysis was performed by UV-VIS and LC-MS/MS.
 Simulant Used: 3% Acetic Acid
 Test Condition: 2h at 70°C

Test Item(s)	CAS No.	Unit	Limit	MDL	Result		
					1		
					1 st	2 nd	3 rd
1,3-phenylenediamine	108-45-2	mg/kg	0.002	0.002	ND	ND	ND
2,4,5-trimethylaniline	137-17-7	mg/kg	0.002	0.002	ND	ND	ND
2-methoxy-5-methylaniline	120-71-8	mg/kg	0.002	0.002	ND	ND	ND
2-naphthylamine	91-59-8	mg/kg	0.002	0.002	ND	ND	ND
3,3-dichlorobenzidine	91-94-1	mg/kg	0.002	0.002	ND	ND	ND
3,3-dimethoxybenzidine	119-90-4	mg/kg	0.002	0.002	ND	ND	ND
3,3-dimethylbenzidine	119-93-7	mg/kg	0.002	0.002	ND	ND	ND
4,4-methylene-bis-(2-chloro-aniline)	101-14-4	mg/kg	0.002	0.002	ND	ND	ND
4,4-methylenedianiline	101-77-9	mg/kg	0.002	0.002	ND	ND	ND
4,4-methylenendi-o-toluidine	838-88-0	mg/kg	0.002	0.002	ND	ND	ND
4,4-oxydianiline	101-80-4	mg/kg	0.002	0.002	ND	ND	ND
4,4-thiodianiline	139-65-1	mg/kg	0.002	0.002	ND	ND	ND
4-amino-azobenzene	60-09-3	mg/kg	0.002	0.002	ND	ND	ND
4-aminobiphenyl	92-67-1	mg/kg	0.002	0.002	ND	ND	ND
4-chloroaniline	106-47-8	mg/kg	0.002	0.002	ND	ND	ND
4-chloro-o-toluidine	95-69-2	mg/kg	0.002	0.002	ND	ND	ND
4-methoxy-m-phenylenediamine	615-05-4	mg/kg	0.002	0.002	ND	ND	ND
4-methyl-m-phenylenediamine	95-80-7	mg/kg	0.002	0.002	ND	ND	ND
5-nitro-o-toluidine	99-55-8	mg/kg	0.002	0.002	ND	ND	ND
benzidine	92-87-5	mg/kg	0.002	0.002	ND	ND	ND
o-aminoazotoluene	97-56-3	mg/kg	0.002	0.002	ND	ND	ND
o-anisidine	90-04-0	mg/kg	0.002	0.002	ND	ND	ND
o-toluidine	95-53-4	mg/kg	0.002	0.002	ND	ND	ND
Total of other Primary Aromatic Amines	-	mg/kg	0.01	0.01	ND	ND	ND

Remark:

mg/kg = milligram per kilogram

MDL = method detection limit

ND = Not detected, less than MDL

Total other primary aromatic amines are 1,4-phenylenediamine (CAS No.: 106-50-3), 2,4-dimethylaniline (CAS No.: 95-68-1), 2,6-dimethylaniline (CAS No.: 87-62-7), aniline (CAS No.: 62-53-3).

This test item was subcontracted in Eurofins internal lab.

TO BE CONTINUED

TEST RESULT

Specific Migration of Primary Aromatic Amines

Test Request: Specific migration of primary aromatic amines as specified in German Food, Articles of Daily Use and Feed Code of September 1, 2005 (LFGB), Section 30 and 31, and BfR recommendation.
 Test Method: With reference to EN 13130-1:2004 for sample preparation, analysis was performed by UV-VIS and LC-MS/MS.
 Simulant Used: 3% Acetic Acid
 Test Condition: 2h at 70°C

Test Item(s)	CAS No.	Unit	Limit	MDL	Result		
					2		
					1 st	2 nd	3 rd
1,3-phenylenediamine	108-45-2	mg/kg	0.002	0.002	ND	ND	ND
2,4,5-trimethylaniline	137-17-7	mg/kg	0.002	0.002	ND	ND	ND
2-methoxy-5-methylaniline	120-71-8	mg/kg	0.002	0.002	ND	ND	ND
2-naphthylamine	91-59-8	mg/kg	0.002	0.002	ND	ND	ND
3,3-dichlorobenzidine	91-94-1	mg/kg	0.002	0.002	ND	ND	ND
3,3-dimethoxybenzidine	119-90-4	mg/kg	0.002	0.002	ND	ND	ND
3,3-dimethylbenzidine	119-93-7	mg/kg	0.002	0.002	ND	ND	ND
4,4-methylene-bis-(2-chloro-aniline)	101-14-4	mg/kg	0.002	0.002	ND	ND	ND
4,4-methylenedianiline	101-77-9	mg/kg	0.002	0.002	ND	ND	ND
4,4-methylenendi-o-toluidine	838-88-0	mg/kg	0.002	0.002	ND	ND	ND
4,4-oxydianiline	101-80-4	mg/kg	0.002	0.002	ND	ND	ND
4,4-thiodianiline	139-65-1	mg/kg	0.002	0.002	ND	ND	ND
4-amino-azobenzene	60-09-3	mg/kg	0.002	0.002	ND	ND	ND
4-aminobiphenyl	92-67-1	mg/kg	0.002	0.002	ND	ND	ND
4-chloroaniline	106-47-8	mg/kg	0.002	0.002	ND	ND	ND
4-chloro-o-toluidine	95-69-2	mg/kg	0.002	0.002	ND	ND	ND
4-methoxy-m-phenylenediamine	615-05-4	mg/kg	0.002	0.002	ND	ND	ND
4-methyl-m-phenylenediamine	95-80-7	mg/kg	0.002	0.002	ND	ND	ND
5-nitro-o-toluidine	99-55-8	mg/kg	0.002	0.002	ND	ND	ND
benzidine	92-87-5	mg/kg	0.002	0.002	ND	ND	ND
o-aminoazotoluene	97-56-3	mg/kg	0.002	0.002	ND	ND	ND
o-anisidine	90-04-0	mg/kg	0.002	0.002	ND	ND	ND
o-toluidine	95-53-4	mg/kg	0.002	0.002	ND	ND	ND
Total of other Primary Aromatic Amines	-	mg/kg	0.01	0.01	ND	ND	ND

Remark:

mg/kg = milligram per kilogram

MDL = method detection limit

ND = Not detected, less than MDL

Total other primary aromatic amines are 1,4-phenylenediamine (CAS No.: 106-50-3), 2,4-dimethylaniline (CAS No.: 95-68-1), 2,6-dimethylaniline (CAS No.: 87-62-7), aniline (CAS No.: 62-53-3).

This test item was subcontracted in Eurofins internal lab.

END OF THE REPORT