

## TEST REPORT

Job No./Report No TR1374059

Date: 10 September 2018 Page 1 of 15

### AGILEXT LLC

75 WALCH DRIVE PORTLAND ME 04103 NEW YORK UNITED STATES

TEL: +48691760139

### To the attention of Andrzej Choinski

The following sample(s) was (were) submitted and identified by/on behalf of the client as:

Sample No.	Sample Description
A	Plastic Sample (FB3, DB25, DB50, CD40)

Client's reference No. : TR 1374059  
 Sample Receiving Date : 10 August 2018  
 Test Performing Period : 10 August 2018 ~ 10 September 2018  
**Overall Conclusion : FAIL**  
 Test Results : Please refer to the next page(s).

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm).

Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. Unless further specified in an individual contract the sample(s) retention time is 30 days."

In this Test Report tests marked (1) are included in the IAS Accreditation Scope of this Laboratory. Opinions and interpretations expressed herein are outside the scope of IAS Accreditation.

Test Parameters	Result
<b>Chemical tests</b>	<b>A1</b>
FCM - Overall Migration of Total Non-volatile Substance in Plastic Materials - Simulant A (Ethanol 10%)	M
FCM - Overall Migration of Total Non-volatile Substance in Plastic Materials - Simulant B (Acetic acid 3%)	M
FCM - Soluble Heavy Metals in Aqueous Test Simulants (3% Acetic Acid)	M
FCM - Overall Migration of Total Non-volatile Substance in Plastic Materials (95% Ethanol)	F
FCM - Overall Migration of Total Non-volatile Substance in Plastic Materials (Isooctane)	M
Polycyclic Aromatic Hydrocarbons (PAHs) Content for German Market	M
FCM - Sensory Analysis for Packaging Materials and Packages for Food Products	M
Specific migration of Primary Aromatic Amines	M
Isocyanates	M

Remarks	:	M = Meets client's requirement
		F = Below client's requirement
		I = Inconclusive
		* = No specified requirement
		# = For 2-composite mix with results exceeding one half of the relevant requirements or 3-composite mix with results exceeding one third of the relevant requirements, the composite sample may have the possibility of one or more components that can lead to a failure result, therefore, it is recommended to test on individual basis.
Notes:	Conclusions on meet/fail are based on the test result from the actual sampling of the received sample(s).	
	The composite sampling method is based on the client's special request and is a modification from the testing standard.	
	Residual sample can be returned to client if requested.	

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm).

Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. Unless further specified in an individual contract the sample(s) retention time is 30 days."

In this Test Report tests marked (1) are included in the IAS Accreditation Scope of this Laboratory. Opinions and interpretations expressed herein are outside the scope of IAS Accreditation.

## TEST REPORT

Job No./Report No TR1374059

Date: 10 September 2018 Page 3 of 15

The test results relate to the tested items only.  
Test reports without SGS seal and authorized signatures are invalid.  
Reported results do not include uncertainties.

Issued in Istanbul  
Signed for and on behalf of  
SGS Supervise Gözetme Etüd Kontrol Servisleri A.Ş.

Selen Harman  
Customer Services Team Leader

Yağız Barın  
Section Manager




### Component List / List of Materials for Chemical Test

Sample No.	Sample Description	Material No.	Component	Material	Colour
A	Plastic Sample (FB3, DB25, DB50, CD40)	A1	Main	Plastic	Blue

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm).

Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. Unless further specified in an individual contract the sample(s) retention time is 30 days."

In this Test Report tests marked (1) are included in the IAS Accreditation Scope of this Laboratory. Opinions and interpretations expressed herein are outside the scope of IAS Accreditation.

# TEST REPORT

Job No./Report No: TR1374059

Date: 10 September 2018 Page 4 of 15

## Polycyclic Aromatic Hydrocarbons (PAHs) Content<sup>1</sup>

Test Method:	SGS In House Test Method RSTS-CHEM-232-1 (based on to AfPS GS 2014:01 PAK)- Analysis by GC-MS	
<b>Test Item</b>	<b>Cas Number</b>	<b>A1</b>
Naphthalene	91-20-3	n.d.
Acenaphthylene	208-96-8	n.d.
Acenaphthene	83-32-9	n.d.
Fluorene	86-73-7	n.d.
Phenanthrene	85-01-8	n.d.
Anthracene	120-12-7	n.d.
Fluoranthene	206-44-0	n.d.
Pyrene	129-00-0	n.d.
Chrysene	218-01-9	n.d.
Benz(a)anthracene	56-55-3	n.d.
Benzo(b)fluoranthene	205-99-2	n.d.
Benzo[j]fluoranthene	205-82-3	n.d.
Benzo(k)fluoranthene	207-08-9	n.d.
Benzo(a)pyrene	50-32-8	n.d.
Benzo[e]pyrene	192-97-2	n.d.
Indeno[1,2,3-cd]pyrene	193-39-5	n.d.
Dibenz[a,h]anthracene	53-70-3	n.d.
Benzo[g,h,i]perylene	191-24-2	n.d.
<b>Total 18 PAHs</b>		<b>n.d.</b>
	<b>Conclusion<sup>#</sup></b>	<b>Pass</b>
<b>Note(s):</b> n.d. = not detected		
Detection Limit = 0.1 mg/kg (For individual compound)		

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm).

Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. Unless further specified in an individual contract the sample(s) retention time is 30 days."

In this Test Report tests marked (1) are included in the IAS Accreditation Scope of this Laboratory. Opinions and interpretations expressed herein are outside the scope of IAS Accreditation.

**TEST REPORT**

Job No./Report NoTR1374059

Date:10 September 2018Page 5 of 15

# Conclusion is based on the limit per AfPS (Cat 2 Other products under ProdSG)

**AfPS (German commission for Product Safety): GS PAHs requirement**

Parameter	Category 1	Category 2		Category 3	
	Material indented to be put in the mouth or toys with intended skin contact (longer than 30 s).	Materials not falling under category 1 with foreseeable contact to skin for longer than 30 seconds (long-term skin or frequent contact).		Materials not falling under category 1 or 2 with foreseeable contact to skin for less than 30 seconds (short-term skin contact).	
		Toy under 2009/48/EC	Other products under ProdSG	Toy under 2009/48/EC	Other products under ProdSG
Naphthalene (mg/kg)	< 1	< 2		< 10	
Acenaphthylene (mg/kg)	< 1 Sum	< 5 Sum	< 10 Sum	< 20 Sum	< 50 Sum
Acenaphthene (mg/kg)					
Fluorene (mg/kg)					
Phenanthrene (mg/kg)					
Anthracene (mg/kg)					
Fluoranthene (mg/kg)					
Pyrene (mg/kg)					
Benzo[a]anthracene (mg/kg)					
Chrysene (mg/kg)	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[b]fluoranthene (mg/kg)	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[j]fluoranthene (mg/kg)	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[k]fluoranthene (mg/kg)	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[a]pyrene (mg/kg)	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[e]pyrene (mg/kg)	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Indeno[1,2,3-cd]pyrene (mg/kg)	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Dibenz[a,h]anthracene (mg/kg)	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[g,h,i]perylene (mg/kg)	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Sum 18 PAH (mg/kg)	< 1	< 5	< 10	< 20	< 50

**Remark:** The German committee on Product Safety (AfPS) adopted a new PAHs document on August 4, 2014, which is taken into account by the GS certification bodies for the certification process of the GS mark now. The transitional arrangements and deadlines contained therein shall determine the procedure for existing certificates and new certificates; also there are exceptions.

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm).

Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. Unless further specified in an individual contract the sample(s) retention time is 30 days."

In this Test Report tests marked (1) are included in the IAS Accreditation Scope of this Laboratory. Opinions and interpretations expressed herein are outside the scope of IAS Accreditation.

## TEST REPORT

Job No./Report No TR1374059

Date: 10 September 2018 Page 6 of 15

### Overall Migration with %10 Ethanol <sup>1</sup>

**Test Method :** With reference to Commission Regulation (EU) No 10/2011 of 14 January 2011 Annex III and Annex V for selection of condition and EN 1186-1:2002 for selection of test methods; EN 1186-3:2002 aqueous food simulants by total immersion method;

**Test Conditions :** 2 hours at 70 °C (3<sup>rd</sup> migration)

**Simulant Used :** 10% Ethanol (V/V) Aqueous Solution

### Result(s) (mg/dm<sup>2</sup>)

#### A1

<b>Trial 1 :</b>	n.d.
<b>Trial 2 :</b>	n.d.
<b>Trial 3 :</b>	n.d.
<b>Average :</b>	n.d.
<b>Conclusion :</b>	<b>Pass</b>

**Note(s) :** n.d. = not detected

°C = degree Celsius

mg/kg = milligram per kilogram of foodstuff in contact with

mg/dm<sup>2</sup> = milligram per square decimeter of foodstuff in contact with

**Reporting Limit :** 3 mg/dm<sup>2</sup>

**Permissible Limit :** 10 mg/dm<sup>2</sup>

- Remark(s) :**
1. Permissible limit specified by Commission Regulation (EU) No 10/2011 of 14 January 2011 with amendments.
  2. Analytical tolerance of aqueous simulants is 2 mg/dm<sup>2</sup> or 12 mg/kg
  3. Test condition & simulant were specified according to Commission Regulation (EU) No 10/2011 of 14 January 2011 with amendments.
  4. The volume of simulant used is 0,13 L
  5. The ratio of surface area to volume ratio is 6 dm<sup>2</sup> per 1 kg of foodstuff in contact with.
  6. Total food contact surface area of whole article is applied in the calculation of the result according to Commission Regulation (EU) No 10/2011 of 14 January 2011 Article 17
  7. Only food contact surface area of cap, gaskets, stopper or similar sealing article is applied in the calculation of the result

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm).

Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. Unless further specified in an individual contract the sample(s) retention time is 30 days."

In this Test Report tests marked (1) are included in the IAS Accreditation Scope of this Laboratory. Opinions and interpretations expressed herein are outside the scope of IAS Accreditation.

## TEST REPORT

Job No./Report NoTR1374059

Date:10 September 2018Page 7 of 15

### Overall Migration with %3 Acetic Acid <sup>1</sup>

**Test Method :** With reference to Commission Regulation (EU) No 10/2011 of 14 January 2011 Annex III and Annex V for selection of condition and EN 1186-1:2002 for selection of test methods; EN 1186-3:2002 aqueous food simulants by total immersion method;

**Test Conditions :** 2 hours at 70 °C (3<sup>rd</sup> migration)

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

#### Result(s) ( mg/dm<sup>2</sup>)

	<u>A1</u>
<b>Trial 1 :</b>	n.d.
<b>Trial 2 :</b>	n.d.
<b>Trial 3 :</b>	n.d.
<b>Average :</b>	n.d.
<b>Conclusion :</b>	<b>Pass</b>

**Note(s) :** n.d. = not detected

°C = degree Celsius

mg/kg = milligram per kilogram of foodstuff in contact with

mg/dm<sup>2</sup> = milligram per square decimeter of foodstuff in contact with

**Reporting Limit :** 3 mg/dm<sup>2</sup>

**Permissible Limit :** 10 mg/dm<sup>2</sup>

- Remark(s) :**
1. Permissible limit specified by Commission Regulation (EU) No 10/2011 of 14 January 2011 with amendments.
  2. Analytical tolerance of aqueous simulants is 2 mg/dm<sup>2</sup> or 12 mg/kg
  3. Test condition & simulant were specified according to Commission Regulation (EU) No 10/2011 of 14 January 2011 with amendments.
  4. The volume of simulant used is 0,13 L
  5. The ratio of surface area to volume ratio is 6 dm<sup>2</sup> per 1 kg of foodstuff in contact with.
  6. Total food contact surface area of whole article is applied in the calculation of the result according to Commission Regulation (EU) No 10/2011 of 14 January 2011 Article 17
  7. Only food contact surface area of cap, gaskets, stopper or similar sealing article is applied in the calculation of the result

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm).

Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. Unless further specified in an individual contract the sample(s) retention time is 30 days."

In this Test Report tests marked (1) are included in the IAS Accreditation Scope of this Laboratory. Opinions and interpretations expressed herein are outside the scope of IAS Accreditation.

## TEST REPORT

Job No./Report No TR1374059

Date: 10 September 2018 Page 8 of 15

### Overall Migration with %95 Ethanol <sup>1</sup>

**Test Method :** With reference to Commission Regulation (EU) No 10/2011 of 14 January 2011 Annex III and Annex V for selection of condition and EN 1186-1:2002 for selection of test methods; EN 1186-14:2002 substitute test.

**Test Conditions :** 2 hours at 70 °C performed at 2 hours 60 °C (3<sup>rd</sup> migration)

**Simulant Used :** 95% Ethanol (V/V) Aqueous Solution

#### Result(s) (mg/dm<sup>2</sup>)

##### A1

<b>Trial 1 :</b>	23,99
<b>Trial 2 :</b>	22,58
<b>Trial 3 :</b>	23,19
<b>Average :</b>	23,25
<b>Conclusion :</b>	<b>Fail</b>

**Note(s) :** n.d. = not detected

°C = degree Celsius

mg/kg = milligram per kilogram of foodstuff in contact with

mg/dm<sup>2</sup> = milligram per square decimeter of foodstuff in contact with

\* Further verification by vegetable oil is recommended for compliance confirmation if the material of the sample is not Nylon, PVC, Organic Coating, Hard and Rigid Plastics, PS, SAN, ABS, Melamine.

**Reporting Limit :** 3 mg/dm<sup>2</sup>

**Permissible Limit :** 10 mg/dm<sup>2</sup>

- Remark(s) :**
1. Permissible limit specified by Commission Regulation (EU) No 10/2011 of 14 January 2011 with amendments.
  2. Analytical tolerance of aqueous simulants is 2 mg/dm<sup>2</sup> or 12 mg/kg
  3. Test condition & simulant were specified according to Commission Regulation (EU) No 10/2011 of 14 January 2011 with amendments.
  4. The volume of simulant used is 0,13 L
  5. The ratio of surface area to volume ratio is 6 dm<sup>2</sup> per 1 kg of foodstuff in contact with.
  6. Total food contact surface area of whole article is applied in the calculation of the result according to Commission Regulation (EU) No 10/2011 of 14 January 2011 Article 17
  7. Only food contact surface area of cap, gaskets, stopper or similar sealing article is applied in the calculation of the result

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm).

Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. Unless further specified in an individual contract the sample(s) retention time is 30 days."

In this Test Report tests marked (1) are included in the IAS Accreditation Scope of this Laboratory. Opinions and interpretations expressed herein are outside the scope of IAS Accreditation.



# TEST REPORT

Job No./Report No TR1374059

Date: 10 September 2018 Page 9 of 15

## Overall Migration with Isooctane <sup>1</sup>

**Test Method :** With reference to Commission Regulation (EU) No 10/2011 of 14 January 2011 Annex III and Annex V for selection of condition and EN 1186-1:2002 for selection of test methods; EN 1186-14:2002 substitute test.

**Test Conditions :** 2 hours at 70 °C performed at 30 minutes 40 °C (3<sup>rd</sup> migration)

**Simulant Used :** Isooctane

### Result(s) (mg/dm<sup>2</sup>)

	<u>A1</u>
<b>Trial 1 :</b>	n.d.
<b>Trial 2 :</b>	n.d.
<b>Trial 3 :</b>	n.d.
<b>Average :</b>	n.d.
<b>Conclusion :</b>	<b>Pass</b>

**Note(s) :** n.d. = not detected

°C = degree Celsius

mg/kg = milligram per kilogram of foodstuff in contact with

mg/dm<sup>2</sup> = milligram per square decimeter of foodstuff in contact with

\* Further verification by vegetable oil is recommended for compliance confirmation if the material of the sample is not Nylon, PVC, Organic Coating, Hard and Rigid Plastics, PS, SAN, ABS, Melamine.

**Reporting Limit :** 3 mg/dm<sup>2</sup>

**Permissible Limit :** 10 mg/dm<sup>2</sup>

- Remark(s) :**
1. Permissible limit specified by Commission Regulation (EU) No 10/2011 of 14 January 2011 with amendments.
  2. Analytical tolerance of aqueous simulants is 2 mg/dm<sup>2</sup> or 12 mg/kg
  3. Test condition & simulant were specified according to Commission Regulation (EU) No 10/2011 of 14 January 2011 with amendments.
  4. The volume of simulant used is 0,13 L
  5. The ratio of surface area to volume ratio is 6 dm<sup>2</sup> per 1 kg of foodstuff in contact with.
  6. Total food contact surface area of whole article is applied in the calculation of the result according to Commission Regulation (EU) No 10/2011 of 14 January 2011 Article 17
  7. Only food contact surface area of cap, gaskets, stopper or similar sealing article is applied in the calculation of the result

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm).

Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. Unless further specified in an individual contract the sample(s) retention time is 30 days."

In this Test Report tests marked (1) are included in the IAS Accreditation Scope of this Laboratory. Opinions and interpretations expressed herein are outside the scope of IAS Accreditation.

## TEST REPORT

Job No./Report NoTR1374059

Date:10 September 2018Page 10 of 15

### Determination of Soluble Heavy Metals in Aqueous Test Simulants<sup>1</sup>

**Test Method :** SGS In House Test Method RSTS-CHEM-602-1 (with reference to EN13130-1:2004) – Analysis by ICP-OES.

**Test Conditions :** 2 hours at 70 °C (3<sup>rd</sup> Migration)

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

<b>Test Items</b>	<b>Result(s)</b>	<b>Reporting Limit</b>	<b>Permissible Limit</b>
	<b>(mg/kg)</b>	<b>(mg/kg)</b>	<b>(mg/kg)</b>
Specific Migration of Aluminum	n.d.	0,10	1,00
Specific Migration of Barium	n.d.	0,25	1,00
Specific Migration of Cobalt	n.d.	0,01	0,05
Specific Migration of Copper	n.d.	0,25	5,00
Specific Migration of Iron	n.d.	0,25	48,00
Specific Migration of Lithium	n.d.	0,50	0,60
Specific Migration of Manganese	n.d.	0,25	0,60
Specific Migration of Zinc	n.d.	0,50	5,00

**Conclusion :** Pass

**Note(s) :** n.d. = not detected

°C = degree Celsius

mg/kg = milligram per kilogram of foodstuff in contact with

- Remark(s) :**
1. Permissible limit is according to Commission Regulation (EU) No 10/2011 of 14 January 2011 with amendments,
  2. Test condition & simulant were specified according to Commission Regulation (EU) No 10/2011 of 14 January 2011 with amendments.
  3. The volume of simulant used is 0,13 L,
  4. The ratio of surface area to volume ratio is 6 dm<sup>2</sup> per 1 kg of foodstuff in contact with

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm).

Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. Unless further specified in an individual contract the sample(s) retention time is 30 days."

In this Test Report tests marked (1) are included in the IAS Accreditation Scope of this Laboratory. Opinions and interpretations expressed herein are outside the scope of IAS Accreditation.

## TEST REPORT

Job No./Report No:TR1374059

Date:10 September 2018 Page 11 of 15

### Sensorial Examination of Odour and Taste Test

**Test Method :** With reference to DIN 10955:2004

**Test Media :** Deionized water

**Number of Panelists :** 6

**Test Conditions :** 2 hours at 70°C

<u>Test Item(s)</u>	<u>Result(s)</u> <u>(Point scale)</u>	<u>Permissible Limit</u> <u>(Point Scale)</u>
Odour	0	2,5
Taste	0	2,5
<b>Conclusion :</b>	<b>Pass</b>	

**Note(s) :** Intensity scale (rounded at 0,5):

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

**Remark(s) :** 1. Permissible Limit is according to German Food, Articles of Daily Use and Feed Code of September 1, 2005 (LFGB), Section 30 & 31 with Amendments.

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm).

Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. Unless further specified in an individual contract the sample(s) retention time is 30 days."

In this Test Report tests marked (1) are included in the IAS Accreditation Scope of this Laboratory. Opinions and interpretations expressed herein are outside the scope of IAS Accreditation.

## TEST REPORT

Job No./Report No TR1374059

Date: 10 September 2018 Page 12 of 15

### Specific migration of Primary Aromatic Amines

**Test Method :** With reference to EN13130-1:2004 and EU JRC Guideline EUR 24815 EN 2011 – Analysis by LC-MS/MS.

**Test Conditions :** 2 hours at 70 °C (1<sup>st</sup> Migration)

**Simulant Used :** 3% Acetic Acid (w/v) Aqueous Solution

**Operator Name :** Burak Melkonyan

**Type of Migration :** Total immersion

<u>Test Items</u>	<u>Result(s) (mg/kg)</u>
	<b>A1</b>
2,4,5-Trimethylaniline (2,4,5-TMA)	n.d.
2,4-Dimethylaniline (2,4-DMA)	n.d.
2,4-Toluediamine (2,4-TDA)	n.d.
2,6-Dimethylaniline (2,6-DMA)	n.d.
2,6-Toluediamine (2,6-TDA)	n.d.
2-Methoxy-5-Methylaniline (2-M-5-MA)	n.d.
3,3-Dimethylbenzidine (3,3-DMB)	n.d.
4,4-Diaminodiphenylether (4,4-DPE)	n.d.
4,4'-Methylenedianiline (4,4-MDA)	n.d.
4,4-Methylenedi-o-toluidine (4,4-MDoT)	n.d.
4-Aminobiphenyl (4-ABP)	n.d.
4-Chloro-Aniline (4-CA)	n.d.
4-Chloro-o-Toluidine (4-CoT)	n.d.
Aniline (ANL)	n.d.
4-Methoxy-m-phenylenediamine (4-M-mPDA)	n.d.
Benzidine (BNZ)	n.d.
m-Phenylenediamine (m-PDA)	n.d.
o-Anisidine (o-ASD)	n.d.
o-Toluidine (O-T)	n.d.
p-Phenylenediamine (p-PDA)	n.d.
<b>Total</b>	n.d.

**Conclusion :**

**Pass**

**Note(s) :** n.d. = not detected

°C = degree Celsius

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm).

Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. Unless further specified in an individual contract the sample(s) retention time is 30 days."

In this Test Report tests marked (1) are included in the IAS Accreditation Scope of this Laboratory. Opinions and interpretations expressed herein are outside the scope of IAS Accreditation.

**TEST REPORT**

Job No./Report NoTR1374059

Date:10 September 2018Page 13 of 15

mg/kg = milligram per kilogram of foodstuff in contact with

**Reporting Limit** : 0,002 mg/kg**Permissible Limit** : 0,01 mg/kg Total

- Remark(s)** :
1. Permissible Limit is according to Commission Regulation (EU) No 10/2011 of 14 January 2011 with amendments and Commission Regulation (EU) No 284/2011 of 22 March 2011.
  2. Test condition was referred to EU JRC guidelines EUR 24815 EN 2011, in support of Commission Regulation (EU) No 284/2011 of 22 March 2011,
  3. The ratio of surface area to volume ratio is 6 dm<sup>2</sup> per 1 kg of foodstuff in contact with
  4. The volume of simulant used is 0,13 L,

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm).

Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. Unless further specified in an individual contract the sample(s) retention time is 30 days."

In this Test Report tests marked (1) are included in the IAS Accreditation Scope of this Laboratory. Opinions and interpretations expressed herein are outside the scope of IAS Accreditation.

## TEST REPORT

Job No./Report No TR1374059

Date: 10 September 2018 Page 14 of 15

\*\*

### Isocyanates

#### Test Method

based on DIN EN 13130-8:2004

<u>Sample(s) /Subsample(s)</u>	<u>Unit</u>	<u>Result</u>
		<b>1</b>
Diphenylmethane-4,4' diisocyanate	mg/kg	< 0.04
Diphenylmethane-2,4 diisocyanate	mg/kg	< 0.04
Hexamethylene diisocyanate	mg/kg	< 0.05
2,4-Toluene diisocyanate	mg/kg	< 0.05
2,6-Toluene diisocyanate	mg/kg	< 0.05
Isophorone diisocyanate	mg/kg	< 0.04
Total Isocyanate (as NCO)	mg/kg	-
Conclusion		Pass

Note:

Requirement: Sum: max. 1 mg/kg (Regulation (EU) No 10/2011)

\*\* This test has been performed as subcontracted at SGS Germany.

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm).

Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. Unless further specified in an individual contract the sample(s) retention time is 30 days."

In this Test Report tests marked (1) are included in the IAS Accreditation Scope of this Laboratory. Opinions and interpretations expressed herein are outside the scope of IAS Accreditation.

**TEST REPORT**

Job No./Report NoTR1374059

Date:10 September 2018Page 15 of 15



\* \* \* End of Test Report \* \* \*

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm).

Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. Unless further specified in an individual contract the sample(s) retention time is 30 days."

In this Test Report tests marked (1) are included in the IAS Accreditation Scope of this Laboratory. Opinions and interpretations expressed herein are outside the scope of IAS Accreditation.