

**pH s.r.l.**

Società unipersonale soggetta al controllo e al coordinamento di TÜV SÜD AG
 - Sede legale e Laboratorio Alimenti: Via Sangallo, 29 50028 Tavarnelle V.P. (FI)
 telefono: +39 055 80961 fax: +39 055 8071099
 - Uffici e Laboratorio Ambiente: Via Bramante, 10/12 50028 Tavarnelle V.P. (FI)
 telefono: +39 055 80677 fax: +39 055 8067850
 - Laboratorio Ambiente: Z.I. Tito Scalo 85050 Tito (PZ)
 telefono: +39 0971 485795 fax: +39 0971 485795
 e-mail: info@pHsrl.it web: www.tuv.it/ph

TEST REPORT**N° 19-FC00001**

Sample identification number: 19-FC00001
Sample description: article P/PB794/890053-2 : Gasket drw. 890053-2 evolast@B794 WHITE
Sampled by: Customer (§)
Customer: MCM SPA
 Via Castello, 70
 ADRARA SAN MARTINO 24060 BG
Arrival date: 04/12/2018

(§)The Laboratory is not responsible for sampling modalities.

RESULTS

Test Method	Chemical parameters	Results	unc	u.m.	LOQ	Limits	o.u.	Note	Start date	End date
Time and Temperature										
Time		10		days					04/12	04/12
Temperature		40.0		°C					04/12	04/12
Overall migration in ethanol 10% by immersion		< 0.5		mg/dm ²	0.5	8	0_A		04/12	18/12
<small>DM 21/03/1973 SO GU n°104 20/04/1973</small>										
Overall migration in ethanol 10% reply A		< 0.5		mg/dm ²	0.5				04/12	18/12
Overall migration in ethanol 10% reply B		< 0.5		mg/dm ²	0.5				04/12	18/12
Overall migration in ethanol 10% reply C		< 0.5		mg/dm ²	0.5				04/12	18/12
Overall migration in acetic acid 3% by immersion		2.51		mg/dm ²	0.5	8	0_A		04/12	18/12
<small>DM 21/03/1973 SO GU n°104 20/04/1973</small>										
Overall migration in acetic acid 3% reply A		2.62		mg/dm ²	0.5				04/12	18/12
Overall migration in acetic acid 3% reply B		2.54		mg/dm ²	0.5				04/12	18/12
Overall migration in acetic acid 3% reply C		2.36		mg/dm ²	0.5				04/12	18/12
Time and Temperature of simulant substitute: Isoctane										
Time		2		days					10/12	10/12
Temperature		20.0		°C					10/12	10/12
Time and Temperature of simulant substitute: Ethanol 95%										
Time		10		days					10/12	10/12
Temperature		40.0		°C					10/12	10/12
Overall migration in ethanol 95%		< 0.5		mg/dm ²	0.5	8	0_A		10/12	19/12
<small>DM 21/03/1973 SO GU n°104 20/04/1973 + UNI EN 1186</small>										
Overall migration in ethanol 95% reply A		< 0.5		mg/dm ²	0.5				10/12	19/12

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Test Method	Chemical parameters	Results	unc	u.m.	LOQ	Limits	o.u.	Note	Start date	End date
Overall migration in ethanol 95% reply B		< 0.5		mg/dm ²	0.5				10/12	19/12
Overall migration in ethanol 95% reply C		< 0.5		mg/dm ²	0.5				10/12	19/12
Overall migration in isoctane <i>DM 21/03/1973 SO GU n°104 20/04/1973 + UNI EN 1186</i>		< 0.5		mg/dm ²	0.5	8	0_A		10/12	19/12
Overall migration in isoctane reply A		< 0.5		mg/dm ²	0.5				10/12	19/12
Overall migration in isoctane reply B		< 0.5		mg/dm ²	0.5				10/12	19/12
Overall migration in isoctane reply C		< 0.5		mg/dm ²	0.5				10/12	19/12
PRIMARY AROMATIC AMINES SPECIFIC MIGRATION IN ACETIC ACID 3% <i>Reg UE 10/2011 14/01/2011 GU L12/1 15/01/2011 App V + JRC-IHCP EU RL-FCM Aromatic amines Protocol A Ed. 1 2011</i>						0.01	0_A			
4,4-Methylenedianiline specific migration in acetic acid 3% <i>Reg UE 10/2011 14/01/2011 GU L12/1 15/01/2011 App V + JRC-IHCP EU RL-FCM Aromatic amines Protocol A Ed. 1 2011</i>		< 0.002		mg/Kg	0.002		0_A		04/12	19/12
4,4-Diaminodiphenylether specific migration in acetic acid 3% <i>Reg UE 10/2011 14/01/2011 GU L12/1 15/01/2011 App V + JRC-IHCP EU RL-FCM Aromatic amines Protocol A Ed. 1 2011</i>		< 0.002		mg/Kg	0.002		0_A		04/12	19/12
4-Chloro-Aniline specific migration in acetic acid 3% <i>Reg UE 10/2011 14/01/2011 GU L12/1 15/01/2011 App V + JRC-IHCP EU RL-FCM Aromatic amines Protocol A Ed. 1 2011</i>		< 0.002		mg/Kg	0.002		0_A		04/12	19/12
p-Phenylendiamine specific migration in acetic acid 3% <i>Reg UE 10/2011 14/01/2011 GU L12/1 15/01/2011 App V + JRC-IHCP EU RL-FCM Aromatic amines Protocol A Ed. 1 2011</i>		< 0.002		mg/Kg	0.002		0_A		04/12	19/12
m-Phenylendiamine specific migration in acetic acid 3% <i>Reg UE 10/2011 14/01/2011 GU L12/1 15/01/2011 App V + JRC-IHCP EU RL-FCM Aromatic amines Protocol A Ed. 1 2011</i>		< 0.002		mg/Kg	0.002		0_A		04/12	19/12
3,3-Dimethylbenzidine specific migration in acetic acid 3% <i>Reg UE 10/2011 14/01/2011 GU L12/1 15/01/2011 App V + JRC-IHCP EU RL-FCM Aromatic amines Protocol A Ed. 1 2011</i>		< 0.002		mg/Kg	0.002		0_A		04/12	19/12
2-Methoxy-5-Methylaniline specific migration in acetic acid 3% <i>Reg UE 10/2011 14/01/2011 GU L12/1 15/01/2011 App V + JRC-IHCP EU RL-FCM Aromatic amines Protocol A Ed. 1 2011</i>		< 0.002		mg/Kg	0.002		0_A		04/12	19/12
2,4,5-Trimethylaniline specific migration in acetic acid 3% <i>Reg UE 10/2011 14/01/2011 GU L12/1 15/01/2011 App V + JRC-IHCP EU RL-FCM Aromatic amines Protocol A Ed. 1 2011</i>		< 0.002		mg/Kg	0.002		0_A		04/12	19/12
2,6-Toluenediamine specific migration in acetic acid 3% <i>Reg UE 10/2011 14/01/2011 GU L12/1 15/01/2011 App V + JRC-IHCP EU RL-FCM Aromatic amines Protocol A Ed. 1 2011</i>		< 0.002		mg/Kg	0.002		0_A		04/12	19/12
4-Methoxy-m-phenylenediamine specific migration in acetic acid 3% <i>Reg UE 10/2011 14/01/2011 GU L12/1 15/01/2011 App V + JRC-IHCP EU RL-FCM Aromatic amines Protocol A Ed. 1 2011</i>		< 0.002		mg/Kg	0.002		0_A		04/12	19/12
Aniline specific migration in acetic acid 3% <i>Reg UE 10/2011 14/01/2011 GU L12/1 15/01/2011 App V + JRC-IHCP EU RL-FCM Aromatic amines Protocol A Ed. 1 2011</i>		< 0.002		mg/Kg	0.002		0_A		04/12	19/12
4,4-Methylenedi-o-toluidine specific migration in acetic acid 3% <i>Reg UE 10/2011 14/01/2011 GU L12/1 15/01/2011 App V + JRC-IHCP EU RL-FCM Aromatic amines Protocol A Ed. 1 2011</i>		< 0.002		mg/Kg	0.002		0_A		04/12	19/12
2,6-Dimethylaniline specific migration in acetic acid 3% <i>Reg UE 10/2011 14/01/2011 GU L12/1 15/01/2011 App V + JRC-IHCP EU RL-FCM Aromatic amines Protocol A Ed. 1 2011</i>		< 0.002		mg/Kg	0.002		0_A		04/12	19/12

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Test Method	Chemical parameters	Results	unc	u.m.	LOQ	Limits	o.u.	Note	Start date	End date
	o-Anisidine specific migration in acetic acid 3% <i>Reg UE 10/2011 14/01/2011 GU L12/1 15/01/2011 App V + JRC-IHCP EU RL-FCM Aromatic amines Protocol A Ed. 1 2011</i>	< 0.002		mg/Kg	0.002		0_A		04/12	19/12
	4-aminobiphenyl specific migration in acetic acid 3% <i>Reg UE 10/2011 14/01/2011 GU L12/1 15/01/2011 App V + JRC-IHCP EU RL-FCM Aromatic amines Protocol A Ed. 1 2011</i>	< 0.002		mg/Kg	0.002		0_A		04/12	19/12
	o-Toluidine specific migration in acetic acid 3% <i>Reg UE 10/2011 14/01/2011 GU L12/1 15/01/2011 App V + JRC-IHCP EU RL-FCM Aromatic amines Protocol A Ed. 1 2011</i>	< 0.002		mg/Kg	0.002		0_A		04/12	19/12
	2,4-Dimethylaniline specific migration in acetic acid 3% <i>Reg UE 10/2011 14/01/2011 GU L12/1 15/01/2011 App V + JRC-IHCP EU RL-FCM Aromatic amines Protocol A Ed. 1 2011</i>	< 0.002		mg/Kg	0.002		0_A		04/12	19/12
	2,4-Toluenediamine specific migration in acetic acid 3% <i>Reg UE 10/2011 14/01/2011 GU L12/1 15/01/2011 App V + JRC-IHCP EU RL-FCM Aromatic amines Protocol A Ed. 1 2011</i>	< 0.002		mg/Kg	0.002		0_A		04/12	19/12
	Benzidine specific migration in acetic acid 3% <i>Reg UE 10/2011 14/01/2011 GU L12/1 15/01/2011 App V + JRC-IHCP EU RL-FCM Aromatic amines Protocol A Ed. 1 2011</i>	< 0.002		mg/Kg	0.002		0_A		04/12	19/12
	4-Chloro-o-Toluidine specific migration in acetic acid 3% <i>Reg UE 10/2011 14/01/2011 GU L12/1 15/01/2011 App V + JRC-IHCP EU RL-FCM Aromatic amines Protocol A Ed. 1 2011</i>	< 0.002		mg/Kg	0.002		0_A		04/12	19/12
Test Method	Chemical parameters	Results	unc	u.m.	LOQ	Limits	o.u.	Note	Start date	End date
	Bisphenol A (2,2-Bis(4-hydroxyphenyl)propane) <i>MP/C/1053 rev 0 2015</i>	< 0.01		mg/Kg	0.01	0.01	0_A		04/12	14/12
	Lead content <i>MP/C/985 rev 1 2015</i>	< 0.0002		%	0.0002	0.003	0_A		04/12	17/12
	Zinc content <i>MP/C/985 rev 1 2015</i>	0.0002		%	0.0002	3	0_A		04/12	17/12
	Formaldehyde in aqueous extract <i>MP/C/1248 rev 0 2017</i>	< 0.5		µg/ml	0.5	3	0_A		04/12	17/12
	METALS ACCORDING TO DM 21/03/1973			%						
	Antimony <i>DM n°34 21/03/1973 SO GU n°104 20/04/1973 All IV Sez 7</i>	< 0.0001		%	0.0001	0.05	0_A		04/12	14/12
	Arsenic <i>DM n°34 21/03/1973 SO GU n°104 20/04/1973 All IV Sez 7</i>	< 0.0001		%	0.0001	0.005	0_A		04/12	17/12
	Barium <i>DM n°34 21/03/1973 SO GU n°104 20/04/1973 All IV Sez 7</i>	< 0.0001		%	0.0001	0.01	0_A		04/12	14/12
	Cadmium <i>DM n°34 21/03/1973 SO GU n°104 20/04/1973 All IV Sez 7</i>	< 0.0001		%	0.0001	0.01	0_A		04/12	14/12
	Chromium <i>DM n°34 21/03/1973 SO GU n°104 20/04/1973 All IV Sez 7</i>	< 0.0001		%	0.0001	0.1	0_A		04/12	14/12
	Mercury <i>DM n°34 21/03/1973 SO GU n°104 20/04/1973 All IV Sez 7</i>	< 0.0001		%	0.0001	0.005	0_A		04/12	14/12
	Lead <i>DM n°34 21/03/1973 SO GU n°104 20/04/1973 All IV Sez 7</i>	< 0.0001		%	0.0001	0.01	0_A		04/12	14/12
	Selenium <i>DM n°34 21/03/1973 SO GU n°104 20/04/1973 All IV Sez 7</i>	< 0.0001		%	0.0001	0.01	0_A		04/12	14/12

Legend:
 unc = uncertainty; u.m. = unit of measurement; LOQ (limit of quantification); o.u. (operative unit); 0_A (test performed at o.u. Tavarnelle V.P. - FI, Sangallo street); 0_B (test performed at o.u. Tavarnelle V.P. - FI, Bramante street); II (mobile lab.); III (external analysis); LE.# (Subcontracted Test performed by a different lab.);

Limits referred to D.M. 21/03/1973 of 20/04/1973, n. 104, S.O.



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NOTE

numbers:

Ratio surface/volume = 10 dm²/l

English translation of the original italian test report 18-FC03719

For Microbiological test, the expanded uncertainty, with coverage factor of k=2, is expressed as fiducial limits at 95% probability if not indicated otherwise.

The quantitative tests are carried out in single replica in accordance with the ISO 7218:2007/Amd 1:2013.

For Chemical test, expanded uncertainty is referred to 95% confidence level. Coverage factor k=2.

The limit of determination (LOD) results as 3/10LOQ if not indicated otherwise.

OPINIONS AND INTERPRETATIONS: (not subject to accreditation Accredia)

Regarding the parameters analyzed, the sample complies with DM 21/03/1973 and its amendments and with BfR XXI

- The reported results only refer to the tested sample. Sample conditions at the arrival are recorded in the laboratory managing system.
- Food and not perishable samples are store for 30 day from the arrival date. Water, compost and perishable samples are stored until the emission of the Test Report.
- pH is registered under number 013 on the regional list of approved laboratories for analysis in the context of self-control procedures in the food industry (LR Tuscany No. 9 09/03/2006).

Date, 02/01/2019

Number of documents
attached to this Test Report: 1



Technical Manager
Dott. Filippo Venturi

--- End of Test Report ---



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ATTACHED to the Test Report N° 19-FC00001



photo n. 1