

# Investigation Report

## Investigation of the migration behaviour of three board samples with fountain solutions

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<b>Sample:</b>	<b>No.</b>	<b>Specification</b>
	1	Board sample with FountMax Blue 30.30 AF 4%
	2	Board sample with FountMax Blue 30.62 AF 4%
	3	Board sample with FountMax Blue 30.30 AF 4% + 0,5% XtraMax Water Mineral F642
	5	Blank board sample

## 1. Introduction

Aim of this investigation was the determination of the migration potential of two fountain agents and one rehardener on board. Three treated board samples were analysed and compared to a blank board sample.

## 2. Experimental

The following investigations were performed:

Sample	Investigation	Method of analysis	Simulant <sup>1)</sup>	Conditions time/ temp.
1-3, 5	„10 ppb“-Screening *	GC/MS and GC/FID (10A005)	Tenax <sup>®</sup>	10 days/ 40° C

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\* Accredited method

<sup>1)</sup> Tenax<sup>®</sup>: modified polyphenylene oxide (MPPO)

### 2.1 „10 ppb“-Screening

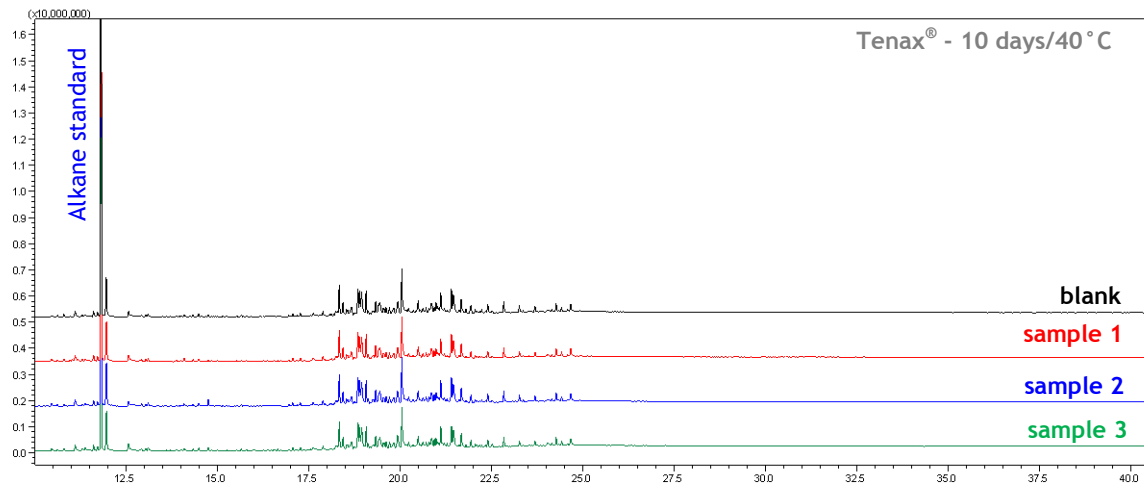
For the migration investigation the samples were placed into migration cells and covered with the food simulant Tenax<sup>®</sup>. After storage of the samples at the time/temperature conditions mentioned above, the simulant was eluted and the eluate worked-up. After addition of an alkane standard (Tridecane) the solutions were analysed by means of gas chromatography coupled with a mass spectrometer (GC/MS) and by gas chromatography with flame ionisation detection (GC/FID).

The substances were quantified semi quantitatively via the alkane standard (10A005).

### 3. Results

#### 3.1 „10 ppb“-Screening

In the following the GC/MS-chromatograms of the three samples are shown in comparison to sample 5 (blank board).



### 4. Conclusions

The results of the investigations are based on the EU-convention which is valid for a surface to volume ratio of 6 dm<sup>2</sup> per kg of food. Diverse amounts of foodstuffs may lead to different migration results and hence possibly new evaluations.

#### 4.1 „10 ppb“-Screening

In samples 1-3 no migrants from the fountain agent and the rehardener exceeding 20 µg/kg food (10 µg/kg food plus 100% analytical tolerance).

**Summary:**

Concerning the results of the migration studies performed, the tested fountain agents and the rehardener at the conditions used can be assessed as **conform** with the European legal stipulations for food contact materials.

The results of the investigations and their assessment are limited to the submitted test samples. Retained samples are stored for six months.

Munich, 24.01.2017

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