

Commission: 2020-0425 A

Arrived: 2020-10-28

Your order no.:

No. of samples: 3

Your ref.: Elisabeth Kron

Tielman

Alkagatan 2

582 77 Linköping

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## Migration to MPPO, 10 ppb screening

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### Type of sample

Printed paper

### Methods

#### Migration to MPPO (method EN 14338):

Determination of migration from the sample was performed using modified polyphenylene oxide (MPPO) as food simulant.

Migration parameters: 220°C, 20 min.

The characterization and quantification of the migrating compounds were performed using gas chromatography/mass spectrometry (GC/MS). Calculation of migrating amounts were performed by semi-quantification against an internal standard and identifications utilizing the NIST14 library.

The migration is estimated using the conventional assumption that 1 kg of food is packed in 6 dm<sup>2</sup> of sample. In reality the amount of packaging material used per kg foodstuff will vary depending on many factors, such as e.g. the density of the foodstuff and the configuration of the packaging.

### Samples

1. Svart, 145g, Laminate single proof silikon på insidan
  3. Lila vit prickig, 175g Laminated single proof silikon på insidan
  4. Silver "girlinger", 70g Candor LF
- See enclosure 2

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Stockholm 2020-11-20

Pulp, Paper and Packaging/Product Safety and Barriers

  
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### Results

#### Migration to MPPO, 10 ppb screening.

Representative total ion chromatograms (TIC) of the MPPO extracts are shown in enclosure 1.

Results for sample 1, 3 and 4.

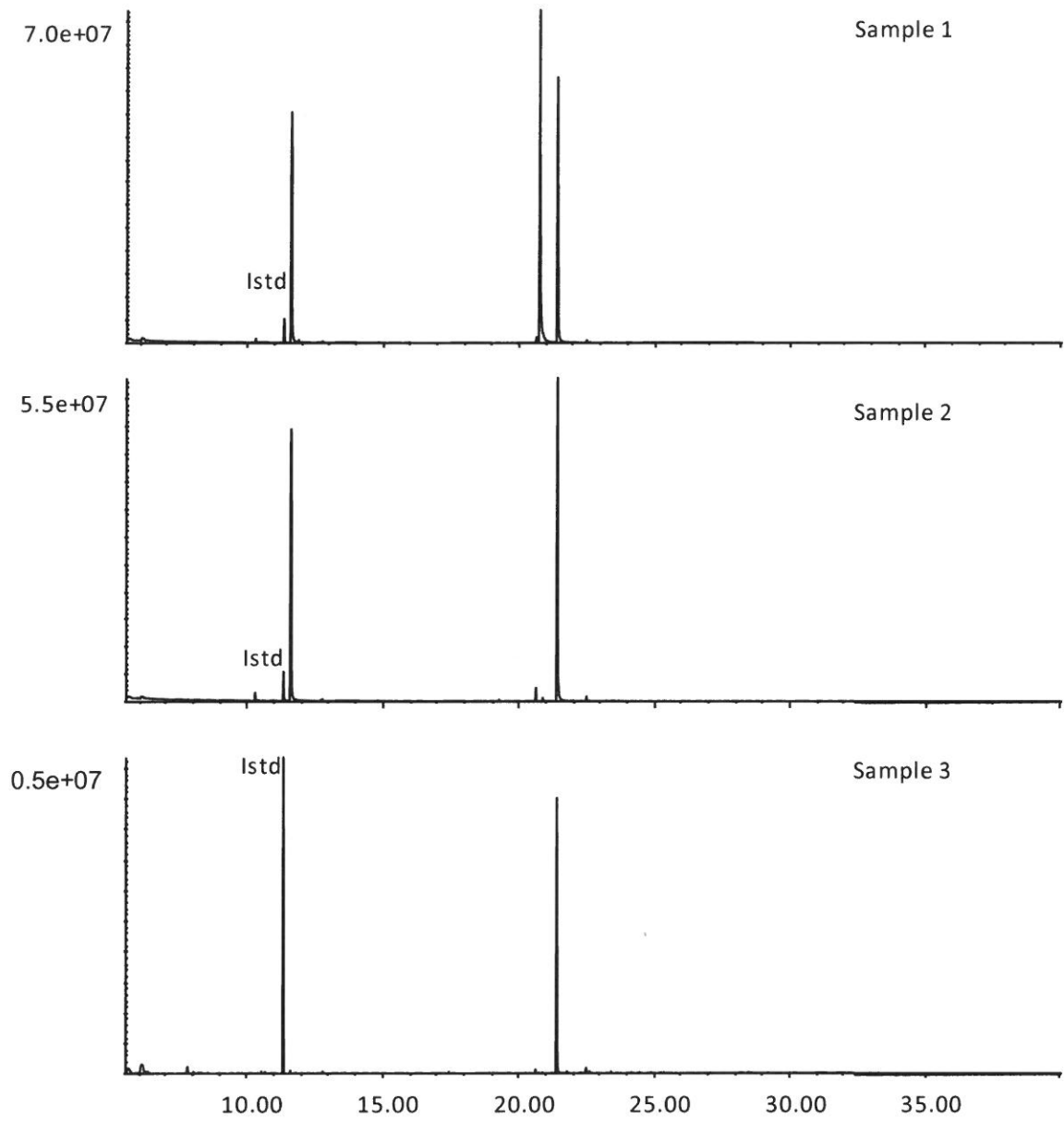
r.t. (min)	Suggested compounds	CAS#	Amount (mg/kg simulant)		
			1	3	4
10.3	1-Acetate-1,2,3-propanetriol	106-61-6	0.05	0.07	-
11.7	1,2-Diacetate-1,2,3-propanetriol	102-62-5	2.34	2.20	-
11.8	Unknown		0.01	0.02	-
11.9	Ethanol, 2-(2-butoxyethoxy)-, acetate	124-17-4	0,02	-	-
12.8	2,3-Pentanedione	600-14-6	0.01	0,01	-
19.3	Unknown		-	0.01	-
20.7	Tributyl aconitate	7568-58-3	0.04	0.06	-
20.8	Decanedioic acid, dibutyl ester	109-43-3	3.53	-	-
20.9	Butyl citrate	77-94-1	-*	0.02	-
21.4	Tributyl acetylcitrate	77-90-7	2.46	2.39	0.15
21.8	Unknown		0.01	-	-
22.5	Methyl dehydroabietate	1235-74-1	0.02	0.03	-

\* might be present but the possible peak is covered by the large peak at r.t 20.8

Report limit = 0.01 mg/kg simulant.

Representative total ion chromatograms of the samples.

istd= internal standard



Samples from left to right:

1. Svart, 145g, Lamine single proof silikon på insidan
3. Lila vit prickig, 175g Laminated single proof silikon på insidan
4. Silver "girlinger", 70g Candor LF

