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Aschaffenburg, 28 July 2009

From: Weippert
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REPORT

Order No.: 4349/12 Page 1 of 3 pages

Client: iimak International Imaging Materials Europe bvba
Moestoemaatheide 33
2440 Geel / Belgium

Date of order: 28 May 2009

Receipt of sample material: 2 June 2009

Origin of sample material: From the client

Purpose: Partial analysis of five thermal transfer ribbons for their compliance with the demands on food contact materials


(Dr. Derra)


(Weippert)
Officially certified
food chemist

The present report refers exclusively to the samples as laid out therein. Information and statistical data on the results can be obtained on request.

Non-accredited determinations have not been validated at the date of the accreditation. Individual determinations were not intended for accreditation owing to their restricted field of application. In these cases, the necessary accuracy for the evaluation is ensured by the internal quality management system.

Sample Material

For analysis the following sample material was in hand:

Sample 1:	SP330
Sample 2:	PM255
Sample 3:	NETMark
Sample 4:	NETMark IQ
Sample 5:	Flexmark Eco

Carrying out of the Tests

Examination period: 6 July 2009 to 21 July 2009

1. Determination of the Residual Solvents *

The standard EN 13628-1 for the examination of flexible packaging materials was taken as a basis. The determination was performed by means of static headspace gas chromatography and FID after storage at 80 °C for 60 min. The space above the sample material was examined for volatile portions.

The components of the upper table were evaluated quantitatively. For the identification of further signals in the chromatogram a commercial mass spectra library was used and, unless otherwise stated, quantified against the internal standard trichlorofluoromethane.

Result:

Sample 1:

Ethanol		0.09	mg/m ²
Isopropanol		0.04	mg/m ²
Hexane	not determinable	< 0.2	mg/m ²
Ethylacetate	not determinable	< 0.2	mg/m ²
Benzene	not determinable	< 0.04	mg/m ²
1-Ethoxy-2-propanol	not determinable	< 0.2	mg/m ²
Toluene		0.4	mg/m ²
Butylacetate	not determinable	< 0.2	mg/m ²
Hexanal	not determinable	< 0.2	mg/m ²
Cyclohexanone	not determinable	< 0.2	mg/m ²

Evaluated against the internal standard:

2-Butanone	3.3	mg/m ²
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Sample 2:

Ethanol		0.07	mg/m ²
Isopropanol	not determinable	< 0.2	mg/m ²
Hexane	not determinable	< 0.2	mg/m ²
Ethylacetate	not determinable	< 0.2	mg/m ²
Benzene	not determinable	< 0.04	mg/m ²

1-Ethoxy-2-propanol	not determinable	< 0.2	mg/m ²
Toluene		11	mg/m ²
Butylacetate	not determinable	< 0.2	mg/m ²
Hexanal	not determinable	< 0.2	mg/m ²
Cyclohexanone	not determinable	< 0.2	mg/m ²

Sample 3:

Ethanol		0.07	mg/m ²
Isopropanol	not determinable	< 0.2	mg/m ²
Hexane	not determinable	< 0.2	mg/m ²
Ethylacetate	not determinable	< 0.2	mg/m ²
Benzene	not determinable	< 0.04	mg/m ²
1-Ethoxy-2-propanol	not determinable	< 0.2	mg/m ²
Toluene		0.08	mg/m ²
Butylacetate	not determinable	< 0.2	mg/m ²
Hexanal	not determinable	< 0.2	mg/m ²
Cyclohexanone	not determinable	< 0.2	mg/m ²

Sample 4:

Ethanol		0.07	mg/m ²
Isopropanol	not determinable	< 0.2	mg/m ²
Hexane	not determinable	< 0.2	mg/m ²
Ethylacetate	not determinable	< 0.2	mg/m ²
Benzene	not determinable	< 0.04	mg/m ²
1-Ethoxy-2-propanol	not determinable	< 0.2	mg/m ²
Toluene		0.3	mg/m ²
Butylacetate	not determinable	< 0.2	mg/m ²
Hexanal	not determinable	< 0.2	mg/m ²
Cyclohexanone	not determinable	< 0.2	mg/m ²

Sample 5:

Ethanol		0.06	mg/m ²
Isopropanol	not determinable	< 0.2	mg/m ²
Hexane	not determinable	< 0.2	mg/m ²
Ethylacetate	not determinable	< 0.2	mg/m ²
Benzene	not determinable	< 0.04	mg/m ²
1-Ethoxy-2-propanol	not determinable	< 0.2	mg/m ²
Toluene		2.6	mg/m ²
Butylacetate		0.1	mg/m ²
Hexanal	not determinable	< 0.2	mg/m ²
Cyclohexanone	not determinable	< 0.2	mg/m ²

Evaluated against the internal standard:

2-Butanone		0.07	mg/m ²
Xylol		0.02	mg/m ²