

# Certificate of Analysis



EHRENSTORFER™

## ISO Guide 34 Reference Material

### Product Identification

Article Code: DRE-C15061000

Article Name: 2,4'-Methoxychlor

Formula: C<sub>16</sub>H<sub>15</sub>Cl<sub>3</sub>O<sub>2</sub>

Mol. Weight: 345.65

CAS No.: 30667-99-3

Lot Number:

G979977

Expiry Date:

24.08.2024

Storage Temperature:

20°C ± 4°C

Storage and handling: The RM should be stored in the original sealed bottle at the temperature given above. After use the bottle should be tightly closed and protected from moisture.

Purity: 98.74% (g/g)

Expanded Uncertainty U= 0.30% (g/g)

The uncertainty of this standard is calculated in accordance with the ISO Guide 34 and EURACHEM/CITAC Guide - Quantifying Uncertainty in Analytical Measurement, Second Edition. The expanded uncertainty is  $U(\text{exp}) = u(\text{RM}) \times k$ , where  $k$  is the coverage factor at the 95% confidence level ( $k=2$ ). Uncertainty  $u(\text{RM})$  is based on the combination of the uncertainties associated with each individual operation involved in the analysis of the product:  $u(\text{RM}) = \sqrt{u(\text{char})^2 + u(\text{bb})^2 + u(\text{Its})^2 + u(\text{sts})^2}$ ;  $u(\text{char})$  is the uncertainty of characterisation;  $u(\text{bb})$  uncertainty of homogeneity test;  $u(\text{Its})$  uncertainty of stability test long-term;  $u(\text{sts})$  uncertainty of stability test short-term.  $u(\text{Its})$  and  $u(\text{sts})$  are not included in the calculation as the stability statement is based on real evidence opposed to simulation.

Minimum sample: 1 mg is recommended as the minimal sample amount. If less material is used, it is recommended to increase the certified uncertainty by a factor of two for half sample and a factor of four for a quarter of sample.

Intended use: Use this RM as calibrant for chromatography or any other analytical technique.

### Analytical Data

Traceability of chromatography: To the International System of Units (SI).

Instrument: GC/FID

Injector: 320°C

Detection: FID

Initial Temp: 120°C for 4 min

Column: Optima-5MS, 0.25 µm, 0.25 mm

End Temp: 320°C for 3 min

Inj.-Vol.: 1 µl

Gradient: 15°C/min

Flow: 1.0 ml/min

Ret.Time: 15.32 min

### Comment

Traceability: The balances used are calibrated with weights traceable to the national standards (DKD).

Calibrated class A glassware is used for volumetric measurements.

Water Content: <0.10% (g/g) by Karl-Fischer-Titration ( $U(\text{exp}) = 0.03\%$  (g/g)).

Purity was determined by chromatographic assay, corrected by water content and/or residue solvents.

Identity: EA, NMR, RT, IR, UV

Attachment: Exemplary chromatogram of given method

Certificate Revision 1 - 24.08.2018 - M. Beck

Certified on: 24.08.2018

Certified by: M. Beck

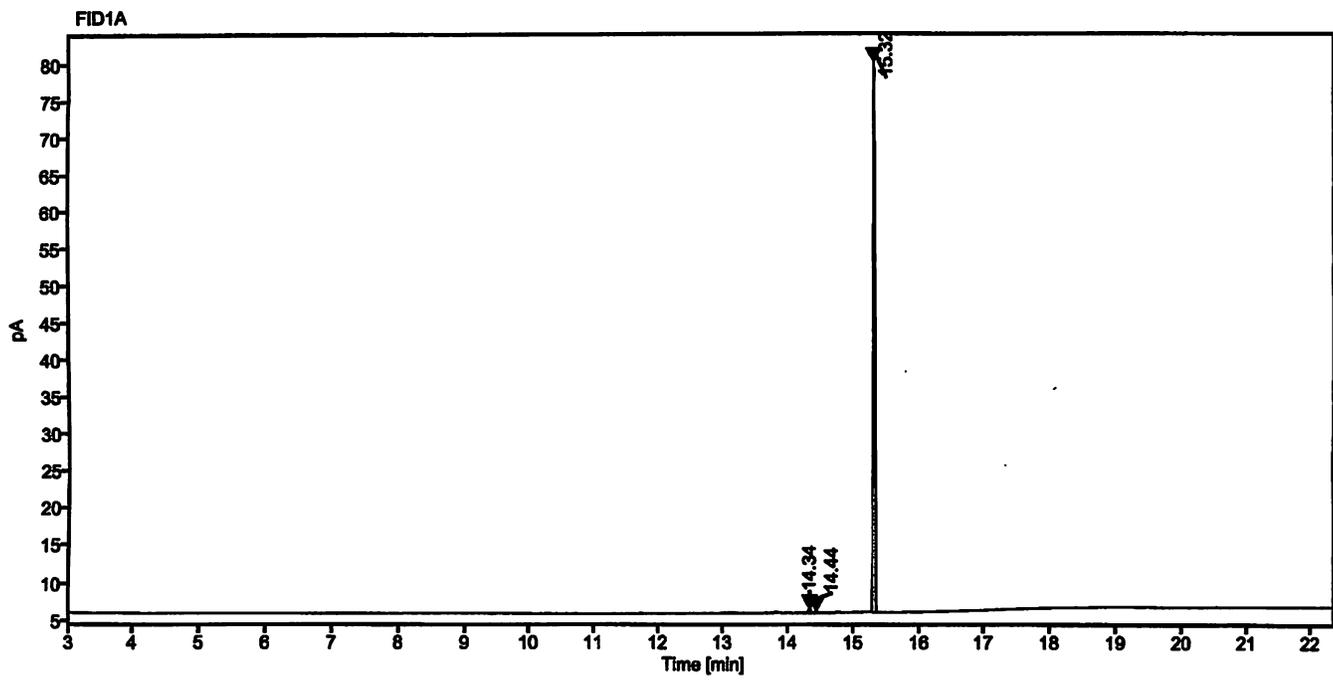
RM Release

The LGC Labor GmbH, accredited by DAkkS as indicated by the accreditation number D-RM-19883-01 & D-PL-19883-01, has shown competence based on ISO Guide 34:2009 with relevant parts of DIN EN ISO/IEC 17025:2005 for production of certified reference materials in form of organic pure substances and in form of single and multi-component solutions of organic pure substances.

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The warranty for this product is limited to the purchasing price of this product.

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Data file: 15061000-09-r001.dx Instrument: FID 2  
Inj. volume [µl]: 1.0 Sequence Name: 2018KW28-FID2-0713a  
Acq. method: PAHK.amx Injection date: 7/14/2018 1:06:53 AM  
Location: 61  
Sample Description 2,4'-Methoxychlor



Signal: FID1A

Nr.	RT [min]	Area [pA*s]	Height [pA]	Area%	Width [min]
1	14.34	0.91767	0.61	0.81	0.086
2	14.44	0.44448	0.30	0.39	0.078
3	15.32	111.34207	74.28	98.79	0.187
	Sum	112.70			