

# Certificate of Analysis



EHRENSTORFER™

## ISO Guide 34 Reference Material

### Product Identification

Article Code: DRE-C10620000

Article Name: Bioresmethrin

Formula: C<sub>22</sub>H<sub>26</sub>O<sub>3</sub>

Mol. Weight: 338.45

CAS No.: 28434-01-7

Lot Number: G880540

Expiry Date: 11.06.2020

Storage Temperature: 4°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: 97.96% (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 8 min
Inj.-Vol.:	1 µl	Gradient:	5°C/min
Flow:	1.0 ml/min		
Ret.Time:	43.08 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 ( $U(\text{exp}) = 0.05\%$  (g/g)).

Identity: EA, NMR, RT, IR, MS

Certificate Revision 1 - 11.06.2018 - M. Beck

Certified on: 11.06.2018

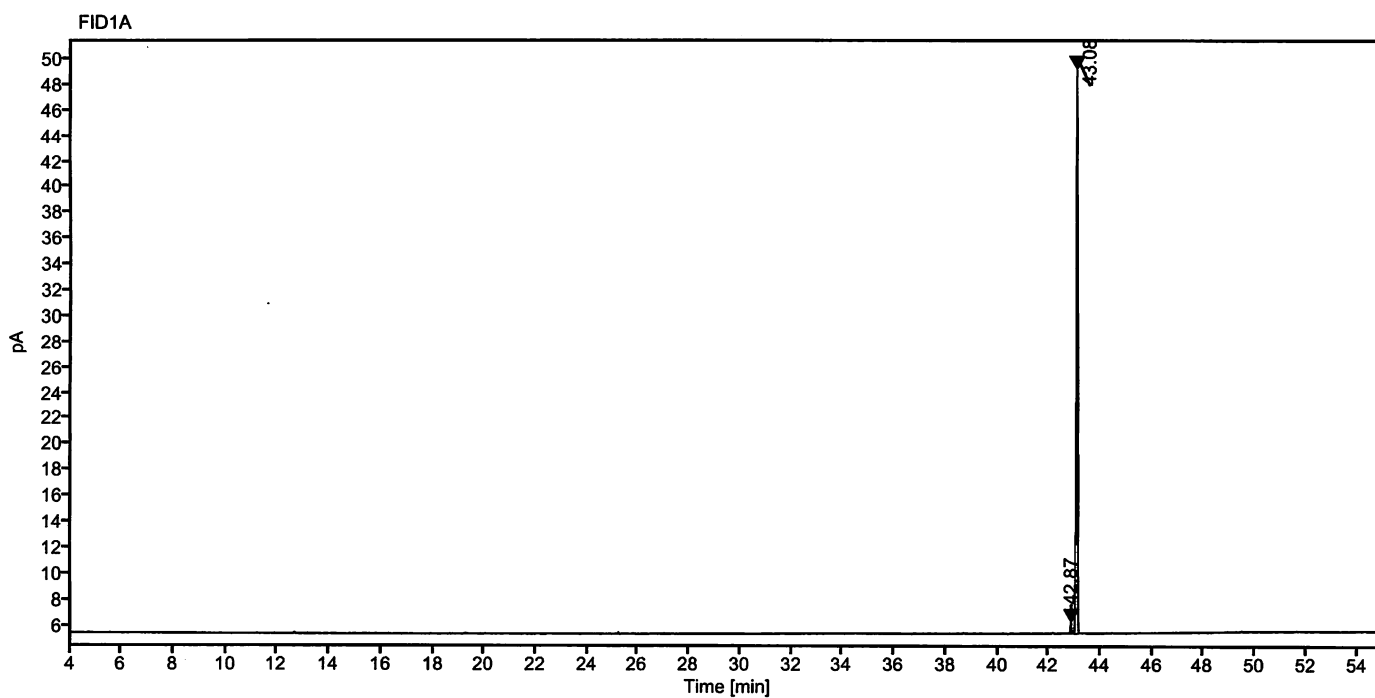
Certified by: M. Beck  
RM Release

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: 10620000-21.dx Instrument: FID 3  
Sample name: 80608CY G880540 Sequence Name: 2018KW23-FID3-0608  
Inj. volume [µl]: 1.0 Injection date: 6/9/2018 5:59:22 AM  
Acq. method: PES.amx Location: 85  
Sample Description Bioresmethrin



Signal: FID1A					
Nr.	RT [min]	Area [pA*s]	Height [pA]	Area%	Width [min]
1	42.87	2.92612	0.85	1.97	0.150
2	43.08	145.79984	43.77	98.03	0.260
	Sum	148.73			