

Reference Material

This certificate is designed in accordance with ISO 17034 and ISO Guide 31. This reference material (RM) was designed, produced and verified in accordance with ISO/IEC 17025, ISO 17034 and a registered quality management system ISO 9001.

Product Name

Cypermethrin 100 µg/mL in Acetonitrile

Product Code

DRE-GA11890000AL

Lot Number

G1252146AL

CAS No.

52315-07-8

Format

Solution

Mol. Weight

416.30

Expiry Date

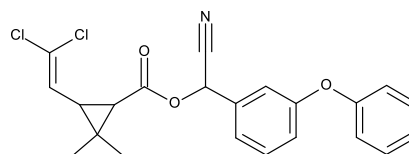
20 May 2025

Mol. Formula

C₂₂H₁₉Cl₂NO₃

Storage Temp

20°C ± 4°C

**CERTIFIED**

Concentration
100.04 µg/mL

CERTIFIED

Expanded Uncertainty (U)
2.41 µg/mL

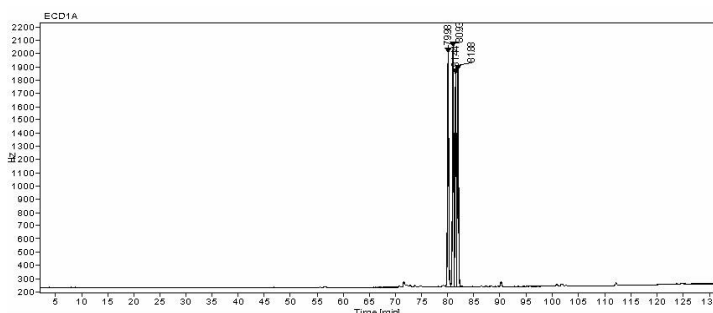
Uncertainty

The certified value(s) and uncertainty(ies) are determined in accordance with ISO 17034 with an 95% confidence level (k=2). Uncertainty is based on the Total Combined Uncertainty, including uncertainties of preparation, purity of neat materials, homogeneity and stability testing. Stability values are based on real evidence opposed to simulation.

The producer certifies that this reference material meets the specification stated in this certificate until the expiry date, provided it is stored unopened at the recommended temperature herein. Product warranties for this reference material are set out in the terms and conditions of purchase.

CERTIFIED BY	CERTIFIED ON		RM Release
N. Müller	20 May 2022		

CHROMATOGRAM



Signal:	ECD1A				
Nr.	RT [min]	Area [Hz*s]	Height [Hz]	Area%	Width [min]
1	79.98	26879.68317	1764.77	25.14	0.179
2	80.93	28988.06005	1809.91	27.11	0.189
3	81.44	24611.52961	1602.84	23.02	0.183
4	81.88	26453.50538	1633.63	24.74	0.191

Instrument

GC/ECD

Column

Optima-5MS, 0.25 µm, 0.25 mm

Method Details

Initial Temp: 120°C / 5 min, End Temp: 280°C / 6 min, Gradient: 2°C/min to 200°C then 1°C/min

Flow

1.0 ml/min mL/min

Method of Preparation

The certified value is based on gravimetric and volumetric preparation of this RM. This RM has been confirmed by the appropriate analytical techniques.

Batch Information

Solvent: Acetonitrile, Lot No. L006068, 50.00 mL.

Mixture of Isomers.

Gravimetric Data

Compound Name	Lot No.	Weight (mg)	Purity (%)
Cypermethrin *	R1090057	5.141	97.3

*mixture of isomers -- See Batch information

Intended Use

This RM is intended for use in a laboratory as a calibration and quality control standard or in method development for analytical techniques.

Safety

Proper precautions should be observed while handling. See Safety Data Sheet.

Traceability

The balances used for gravimetric measurements are calibrated with weights traceable to the national standards (DKD). The calibration of

the balances is verified daily internally and annually by an external accredited calibration service. Chromatographic methods are traceable to the International System of Units (SI).

Homogeneity

Random replicate samples of the final packaged RM have been analysed to prove homogeneity compliant with ISO 17034.

Storage

The RM should be stored in the original sealed container at the indicated temperature.

Instructions for use

The RM should be used shortly after opening to avoid concentration changes due to evaporation. It is recommended to use 1 mL as the minimum sample size and if less material is used, to increase the certified uncertainty by a factor of two for half sample and four for a quarter of sample. If storage after opening is necessary, the RM should be tightly closed and kept from light and moisture. If the RM was in a sealed ampoule, it should be transferred to a vial with minimum head space. Visit the support section of our website lgcstandards.com for a series of Dr. Ehrenstorfer Tech Tip videos and frequently asked questions.

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LGC Labor GmbH is accredited by
DAkkS accreditation numbers
D-RM-19883-01-00 & D-PL-19883-01-00
on ISO 17034:2017 & ISO/IEC 17025:2018

