LGC | DR EHRENSTORFER™

REFERENCE MATERIAL CERTIFICATE

Reference Material

This certificate is designed in accordance with ISO Guide 31. This reference material (RM) was designed, produced and verified in accordance with a registered quality management system ISO 9001. All measurements were performed according to ISO/IEC 17025 by a DAkkS accredited laboratory (D-PL-19883-01-00).

Product Name
Cyfluthrin 10 µg/mL in Cyclohexane

Product Code
DRE-L11850000CY

CAS No.
68359-37-5

Mol. Weight
434.29

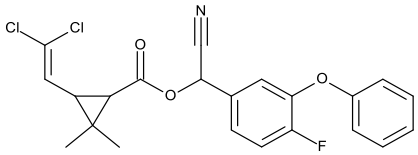
Mol. Formula
$C_{22}H_{18}Cl_2FNO_3$

Lot Number
1469840CY

Format
Solution

Expiry Date
02 Sep 2030

Storage Temp
20°C ± 4°C



CERTIFIED	CERTIFIED
Concentration 10.0 µg/mL	Expanded Uncertainty (U) 0.5 µg/mL

Uncertainty
The certified value(s) and uncertainty(ies) are determined in accordance with EURACHEM/CITAC Guide for "Quantifying Uncertainty in Analytical Measurement, 3rd edition", with an 95% confidence level (k=2). Uncertainty is based on the Total Combined Uncertainty, including uncertainties of characterisation 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		
L. Messerschmid	02 Sep 2024	L. Messerschmid	RM Release

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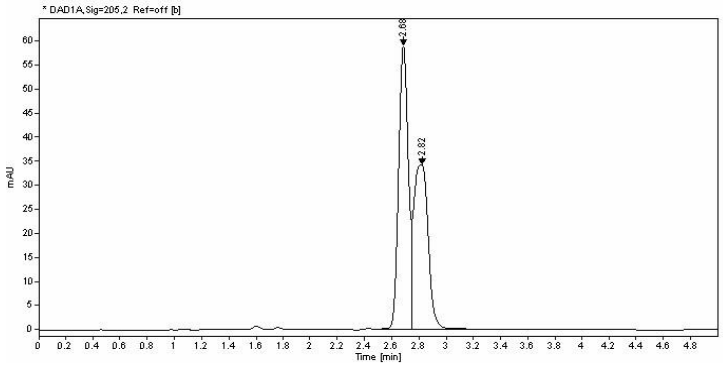
CHROMATOGRAM



Signal: * DAD1A,Sig=205,2 Ref=off [b]

Nr.	RT [min]	Area	Height	Area%
1	2.68	286.62601	58.84	53.16
2	2.82	252.53371	34.08	46.84

Instrument
HPLC/DAD

Detection
DAD

Column
ReproSil 100 C18 5 µm 250 x 3 mm

Method Details
Acetonitrile:Water
9:1

Inj.-Vol.
10.0 µL

Flow
1 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: Cyclohexane, Lot No. 007323CR46, 200.00 mL.
Mixture of Isomers.

Gravimetric Data

Compound Name	Lot No.	Weight (mg)	Purity (%)
Cyfluthrin *	G1386775	2.095	95.5

*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).

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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