Certificate of Analysis

ISO 17034 Reference Material

Product Identification

Article Code: DRE-C11668100
Article Name: Cinoxacin
Formula: C12H10N2O5
Mol. Weight: 262.22
CAS No.: 28657-80-9

Lot Number: G992927
Expiry Date: 22.01.2023
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:	99.69% (g/g)
Expanded Uncertainty U=	0.71% (g/g)

The uncertainty of this standard is calculated in accordance with the ISO 17034 and EURACHEM/CITAC Guide - Quantifying Uncertainty in Analytical Measurement, Second Edition. The expanded uncertainty is U(exp) = u(RM) x k, where k is the coverage factor at the 95% confidence level (k=2). Uncertainty u(RM) is based on the combination of the uncertainties associated with each individual operation involved in the analysis of the product: $u(RM) = \sqrt{u(char)^2 + u(bb)^2 + u(lts)^2 + u(sts)^2}$; u(char) is the uncertainty of characterisation; u(bb) uncertainty of homogeneity test; u(lts) uncertainty of stability test long-term; u(sts) uncertainty of stability test short-term. u(lts) and u(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:	HPLC/DAD
Detection:	DAD
Column:	YMC-Pack ODS-AQ 3 µm 150 x 3 mm
Inj.-Vol.:	3 µl
Flow:	0.5 ml/min
Ret.Time:	10.97 min

Method Details
Eluent A: Acetonitrile + 0.15% Formic Acid
Eluent B: Water + 0.15% Formic Acid

Time[min]	Eluent A [%]	Eluent B [%]
0	15	85
3	15	85
9	35	65
10	100	0
14	100	0

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(exp) = 0.03% (g/g)).
Purity was determined by elemental analysis
Identity: EA, NMR, RT, IR, UV, MS
Attachment: Exemplary chromatogram of given method

Certificate Revision 1 - 22.01.2019 - M. Beck

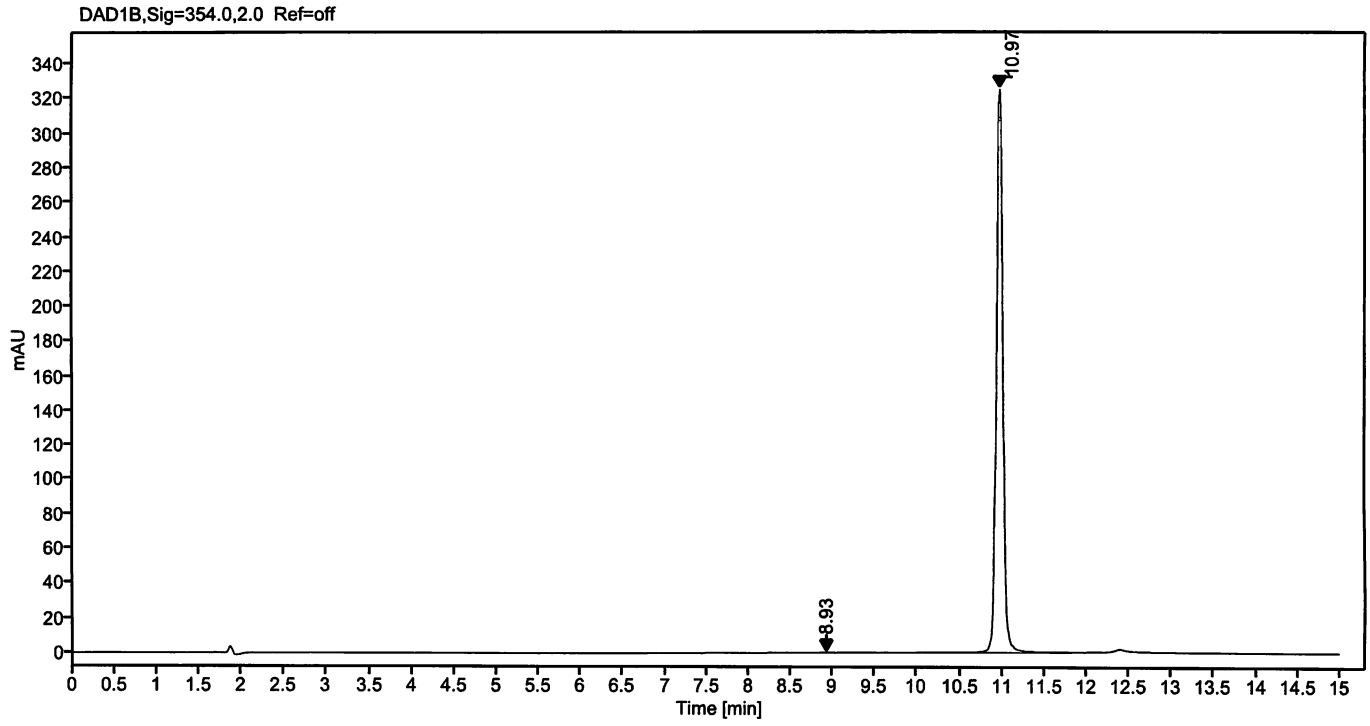
Certified on: 22.01.2019
Certified by: M. Beck
RM Release

The LGC Labor GmbH, accreditated by DAkkS as indicated by the accreditation number D-RM-19883-01 & D-PL-19883-01, has shown competence based on ISO 17034:2017 with relevant parts of DIN EN ISO/IEC 17025:2018 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.

LGC Labor GmbH - Bgm.-Schlosser-Straße 6A - 86199 Augsburg - Germany
Phone +49 821 906080 - Fax +49 821 9060888 - augsburg.inquiry@lgcgroup.com
The warranty for this product is limited to the purchasing price of this product.

Data file:	11668100-08.dx	**Instrument:**	DAD3
Sample name:	90119AL G992927	**Sequence Name:**	16012019-YMC
Inj. volume [µl]:	3.0	**Injection date:**	1/16/2019 9:52:25 AM
Acq. method:	Tetracycline_Gradient_S2.amx	**Location:**	26

Sample Description Cinoxacin
Column: YMC-Pack ODS-AQ, 3 µm, 150 x 3 mm



Signal: DAD1B,Sig=354.0,2.0 Ref=off

Nr.	RT [min]	Area	Height	Area%
1	8.93	0.80988	0.11	0.05
2	10.97	1738.82026	324.69	99.95
	Sum	1739.63		