

Certificate of Analysis

**EHRENSTORFER™**

ISO 17034 Reference Material

Product Identification

Article Code: DRE-C15201000**Article Name:** Metronidazole**Formula:** C₆H₉N₃O₃**Mol. Weight:** 171.15**CAS No.:** 443-48-1**Lot Number:** G978432**Expiry Date:** 04.10.2024**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: 99.65% (g/g)**Expanded Uncertainty U=** 0.34% (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 $U(\text{exp}) = u(\text{RM}) \times k$, 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: HPLC/DAD**Detection:** DAD**Column:** ReproSil 100 C18 5 µm 250 x 3 mm**Inj.-Vol.:** 10 µl**Flow:** 1.0 ml/min**Ret.Time:** 1.17 min**Method Details**

Acetonitrile:Water 2:1

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: 0.24% (g/g) by Karl-Fischer-Titration ($U(\text{exp}) = 0.09\%$ (g/g)).

Purity was determined by elemental analysis

Identity: RT, EA, NMR, UV, MS, IR

Attachment: Exemplary chromatogram of given method

Certificate Revision 1 - 04.10.2018 - N. Müller

Certified on: 04.10.2018**Certified by:** N. Müller

RM Release

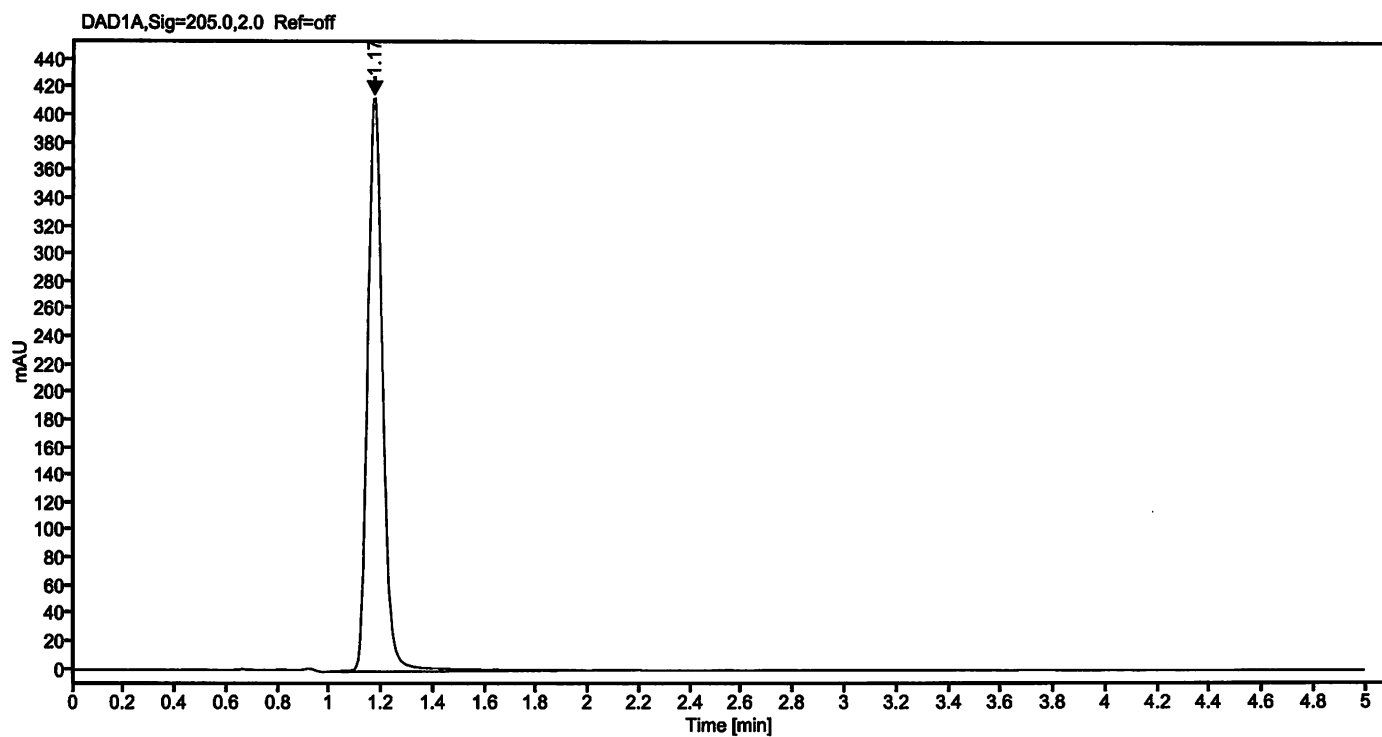
The LGC Labor GmbH, accredited by DAkkS as indicated by the accreditation number D-RM-19883-01 & D-PL-19883-01, has shown competence based on ISO 17034:2017 with relevant parts of DIN EN ISO/IEC 17025:2018 for production of certified reference materials in form of organic pure substances and in form of single and multi-component solutions of organic pure substances.

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

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JLG

Data file:	15201000-05.dx	Instrument:	DAD3
Sample name:	80907WA G978432	Sequence Name:	10092018-2
Inj. volume [µl]:	10.0	Injection date:	9/10/2018 5:59:09 PM
Acq. method:	21K.amx	Location:	65

Sample Description Metronidazole



Signal: DAD1A,Sig=205.0,2.0 Ref=off

Nr.	RT [min]	Area	Height	Area%
1	1.17	1680.69442	416.65	100.00
Sum		1680.69		

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