

Certificate of Analysis

**EHRENSTORFER™**

ISO Guide 34 Reference Material

Product Identification

Article Code: DRE-C10537500**Article Name:** Benzoic acid**Formula:** C₇H₆O₂**Mol. Weight:** 122.12**CAS No.:** 65-85-0**Lot Number:**

G833413

Expiry Date:

13.03.2023

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: 99.66% (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: UHPLC/DAD**Detection:** DAD**Column:** LUNA Omega C18 1.6 µm 100 x 2.1 mm**Inj.-Vol.:** 2 µl**Flow:** 0.5 ml/min**Ret.Time:** 3.55 min**Method Details****Eluent A:** WA + 0.5% H₃PO₄**Eluent B:** Acetonitrile

Time[min]	Eluent A [%]	Eluent B [%]
0	90	10
0.3	90	10
8	0	100
9.5	0	100
10	90	10

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 ($U(\text{exp}) = 0.03\%$ (g/g)).

Purity was determined by chromatographic assay, corrected by water content and/or residue solvents.

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

Certificate Revision 1 - 06.07.2018 - M. Beck

Certified on: 06.07.2018**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.

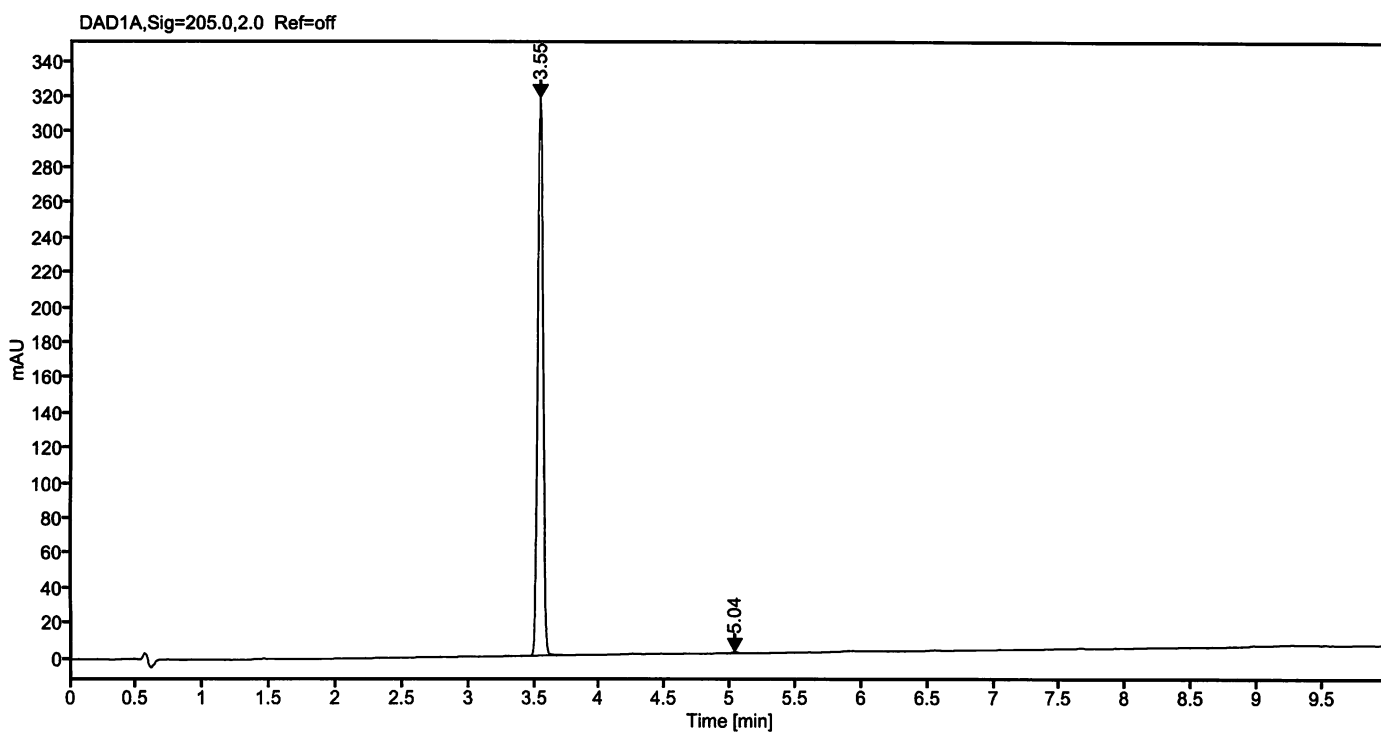
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The warranty for this product is limited to the purchasing price of this product.

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Data file: 10537500-03-r003.dx
Sample name: 80528AL G833413
Inj. volume [µl]: 2.0
Acq. method: Gradient_10-100_P.amx

Instrument: UHPLC 2
Sequence Name: 19062018-2
Injection date: 6/19/2018 5:31:38 PM
Location: P2-A7

Sample Description Benzoic acid



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

Nr.	RT [min]	Area	Height	Area%
1	3.55	905.27999	317.76	99.73
2	5.04	2.44562	0.78	0.27
Sum		907.73		

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