

Certificate of Analysis



EHRENSTORFER™

ISO 17034 Reference Material

Product Identification

Article Code: DRE-C16901000
Article Name: Saccharin
Formula: C7H5NO3S
Mol. Weight: 183.18
CAS No.: 81-07-2

Lot Number: G977635
Expiry Date: 12.10.2024
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: 98.74% (g/g)

Expanded Uncertainty U= 0.41% (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: UHPLC/DAD	Method Details
Detection: DAD	Eluent A: WA + 0.5% H3PO4
Column: LUNA Omega C18 1.6 µm 100 x 2.1 mm	Eluent B: Acetonitrile
Inj.-Vol.: 2.0 µl	
Flow: 0.5 ml/min	Time[min] Eluent A [%] Eluent B [%]
Ret.Time: 1.11 min	0.0 90 10
	0.3 90 10
	8.0 0 100
	9.5 0 100
	10.0 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: 0.39% (g/g) by Karl-Fischer-Titration ($U(\text{exp}) = 0.03\%$ (g/g)).

Purity was determined by elemental analysis

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

Attachment: Exemplary chromatogram of given method

Certificate Revision 1 - 12.10.2018 - N. Müller

Certified on: 12.10.2018
Certified by: N. Müller
RM Release

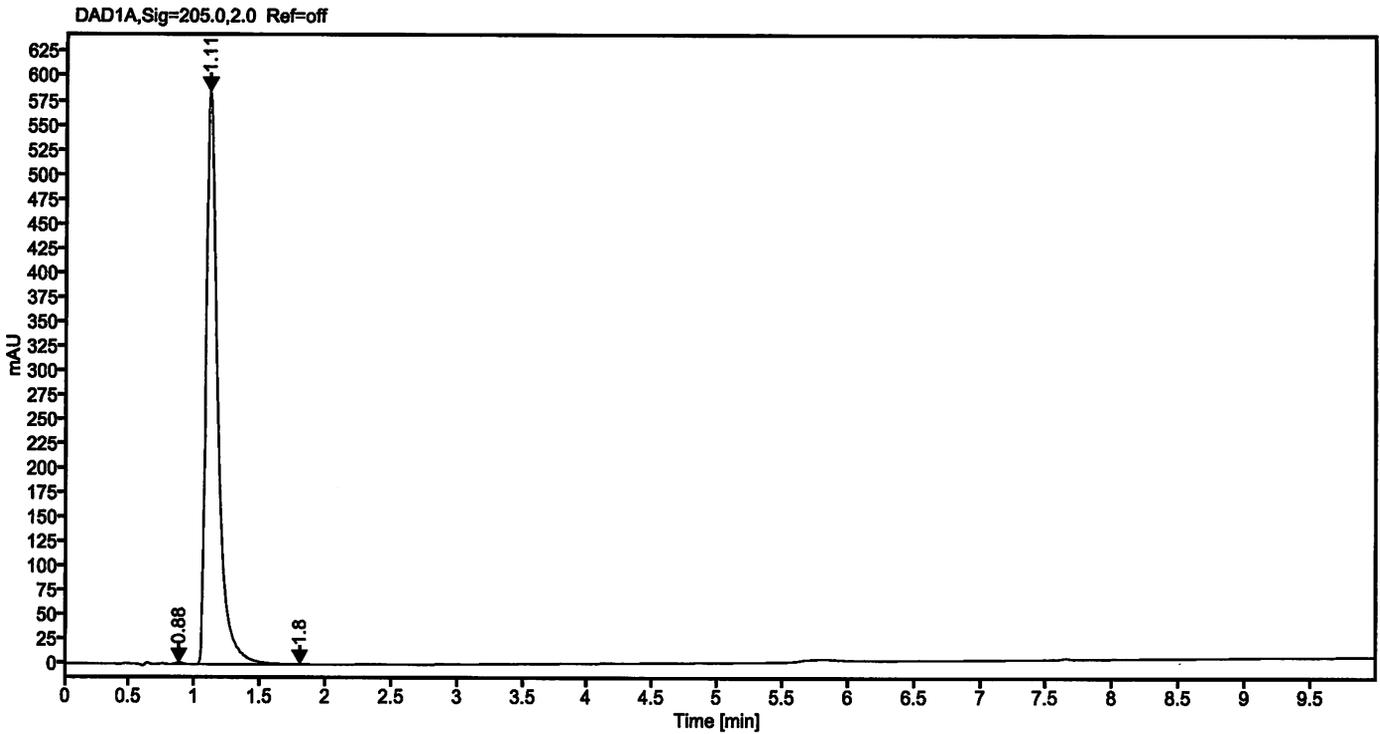
The LGC Labor GmbH, accredited by DAkkS as indicated by the accreditation number D-RM-19883-01 & D-PL-19883-01, has shown competence based on ISO 17034:2017 with relevant parts of DIN EN ISO/IEC 17025:2018 for production of certified reference materials in form of organic pure substances and in form 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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Data file: 16901000-03.dx Instrument: UHPLC 2
Sample name: 81002WA G977635 Sequence Name: 04102018-1
Inj. volume [µl]: 2.0 Injection date: 10/4/2018 3:18:17 PM
Acq. method: Gradient_10-100_P.amx Location: P1-D2

Sample Description Saccharin



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

Nr.	RT [min]	Area	Height	Area%
1	0.88	7.85272	2.14	0.21
2	1.11	3688.23375	586.11	99.68
3	1.80	3.82989	0.73	0.10
	Sum	3699.92		

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