

Certificate of Analysis

ISO 17034 Reference Material



Product Identification

Article Code: DRE-C16415100

Article Name: 1-Propanol

Formula: C₃H₈O

Mol. Weight: 60.09

CAS No.: 71-23-8

Lot Number: G992270

Expiry Date: 26.11.2024

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: 99.73% (g/g)

Expanded Uncertainty U= 0.70% (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: GC/FID

Detection: FID

Column: Optima-5MS, 0.25 µm, 0.25 mm

Inj.-Vol.: 1 µl

Flow: 1.0 ml/min

Ret.Time: 2.71 min

Injector: 280°C

Initial Temp: 60°C for 5 min

End Temp: 280°C for 1 min

Gradient: 15°C/min

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 ($U(\text{exp}) = 0.05\%$ (g/g)).

Purity was determined by elemental analysis

Identity: EA, NMR, RT, IR, MS

Attachment: Exemplary chromatogram of given method

Certificate Revision 1 - 26.11.2018 - M. Beck

Certified on: 26.11.2018

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 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: 16415100-09.dx

Instrument: FID 3

Sample name: G992270

Sequence Name: 2018KW47-1122a

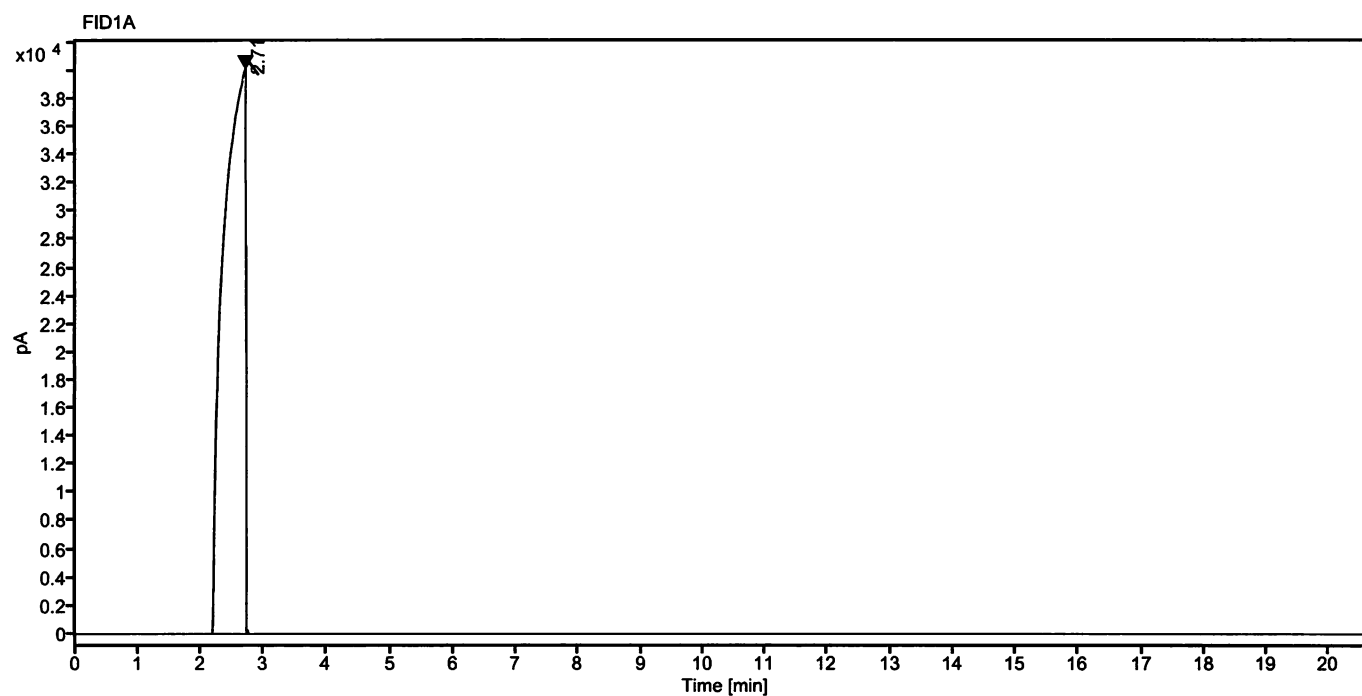
Inj. volume [μl]: 1.0

Injection date: 11/22/2018 6:43:36 PM

Acq. method: pesk.amx

Location: 102

Sample Description 1-Propanol



Signal: FID1A

Nr.	RT [min]	Area [pA*s]	Height [pA]	Area%	Width [min]
1	2.71	946716.73961	40129.23	100.00	0.551
	Sum	946716.74			

Handwritten signature