

Certificate of Analysis



ISO 17034 Reference Material

Product Identification

Article Code: DRE-C13319000

Article Name: Ethyl acetate

Formula: C₄H₈O₂

Mol. Weight: 88.10

CAS No.: 141-78-6

Lot Number:

G985318

Expiry Date:

11.10.2024

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: 99.57% (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 $U(\text{exp}) = u(\text{RM}) \times k$, 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.

Traceability of chromatography: To the International System of Units (SI).

Instrument: GC/FID

Injector: 100°C

Detection: FID

Initial Temp: 40°C for 5 min

Column: Optima-5MS, 0.25 µm, 0.25 mm

End Temp: 100°C for 2 min

Inj.-Vol.: 1 µl

Gradient: 15°C/min

Flow: 1.0 ml/min

Ret.Time: 3.66 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 ($U(\text{exp}) = 0.03\%$ (g/g)).

Purity was determined by elemental analysis

Identity: EA, NMR, RT, IR, MS

No chromatogram available.

Certificate Revision 1 - 11.10.2018 - D.Schmid

Certified on: 11.10.2018

Certified by: D.Schmid

RM Release

Schmid D.

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.