

Certificate of Analysis

**EHRENSTORFER™**

ISO Guide 34 Reference Material

Product Identification

Article Code: DRE-C17945100**Article Name:** m-Xylene**Formula:** C₈H₁₀**Mol. Weight:** 106.16**CAS No.:** 108-38-3**Lot Number:** G974443**Expiry Date:** 16.07.2024**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: 99.82% (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: GC/FID**Detection:** FID**Column:** Optima-5MS, 0.25 µm, 0.25 mm**Inj.-Vol.:** 1 µl**Flow:** 1.0 ml/min**Ret.Time:** 8.79 min**Injector:** 200°C**Initial Temp:** 40°C for 5 min**End Temp:** 200°C for 16 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 ($U(\text{exp}) = 0.03\%$ (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 - 16.07.2018 - M. Beck

Certified on: 16.07.2018**Certified by:** M. Beck

RM Release

The LGC Labor GmbH, accredited by DAkS 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.

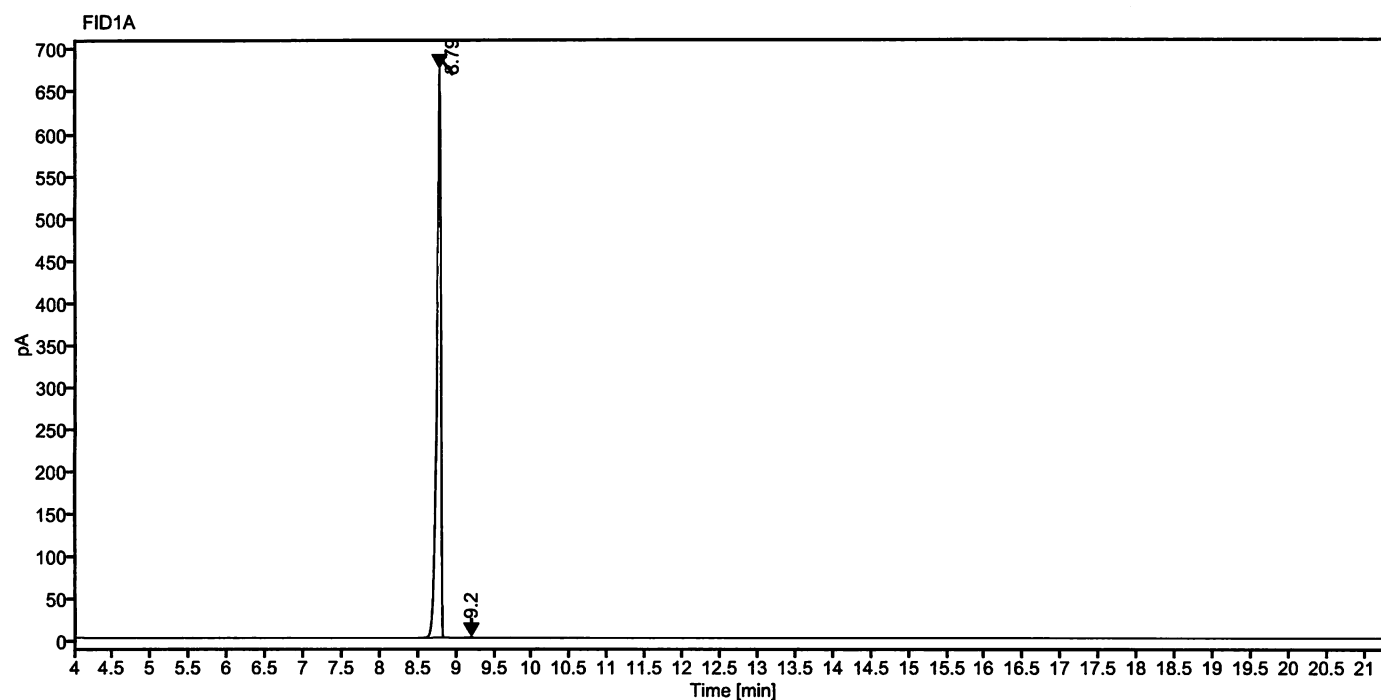
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The warranty for this product is limited to the purchasing price of this product.

BS

Data file: 17945100-07.dx
Sample name: 80707AL G974443
Inj. volume [µl]: 1.0
Acq. method: 200.amx

Instrument: FID 2
Sequence Name: 2018KW26-0627-a
Injection date: 6/27/2018 5:19:44 PM
Location: 56

Sample Description m-Xylene



Signal: FID1A

Nr.	RT [min]	Area [pA*s]	Height [pA]	Area%	Width [min]
1	8.79	2355.24940	672.58	99.83	0.332
2	9.20	3.95674	1.52	0.17	0.163
Sum		2359.21			

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