Certificate of Analysis

ISO 17034 Reference Material

Product Identification

Article Code: DRE-C13150000
Article Name: Endothal
Formula: C8H10O5
Mol. Weight: 186.16
CAS No.: 145-73-3

Lot Number: G979611
Expiry Date: 06.11.2024
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: 89.87% (g/g)

Expanded Uncertainty U= 4.13% (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(exp) = u(RM) x k, where k is the coverage factor at the 95% confidence level (k=2). Uncertainty u(RM) is based on the combination of the uncertainties associated with each individual operation involved in the analysis of the product: $u(RM) = \sqrt{u(char)^2 + u(bb)^2 + u(lts)^2 + u(sts)^2}$; u(char) is the uncertainty of characterisation; u(bb) uncertainty of homogeneity test; u(lts) uncertainty of stability test long-term; u(sts) uncertainty of stability test short-term. u(lts) and u(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:	HPLC/MS
Detection:	MS
Column:	Nucleodur 100 HILIC 5 µm 250 x 3 mm
Inj.-Vol.:	10 µl
Flow:	0.5 ml/min
Ret.Time:	6.26 min

Method Details
Eluent A: Water + 0.15% Formic acid
Eluent B: Acetonitrile

Time[min]	Eluent A [%]	Eluent B [%]
0	10	90
2	10	90
47	60	40
52	60	40
55	10	90

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: 9.17% (g/g) by Karl-Fischer-Titration (U(exp) = 0.81% (g/g)).
Purity was determined by elemental analysis
Identity: EA, NMR, RT, MS
No chromatogram available.

Certificate Revision 1 - 06.11.2018 - M. Beck

Certified on: 06.11.2018
Certified by: M. Beck
RM Release

The LGC Labor GmbH, accreditated 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.