

Certificate of Analysis

ISO 9001

Reference Material

Product name

Propylene Glycol (Propane-1,2-diol)

Product code

MM1481.00

CAS number

57-55-6

Molecular weight

76.09

Molecular formula

C₃H₈O₂

Lot number

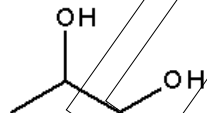
1031655

Appearance

colourless liquid

Long-term storage

2 to 8 °C, dark
very hygroscopic



Assay "as is"
99.1 %

Date of shipment:

08 Oct 2019

Producer confirms that this reference material (RM) meets the specification detailed on this Certificate of Analysis for **one year** from the date of shipment, provided the substance is stored under the recommended conditions unopened in the original container.

Release by:	Date of Release:		Product Release
Dr. Sabine Schröder	Luckenwalde, 02 Oct 2019		



Mikromol™

Product information

For laboratory use only. Not suitable for human or animal consumption.

Before usage of the RM, it should be allowed to warm to room temperature. No drying required, as the certified value is already corrected for the content of water and other volatile materials.

The product quality is controlled by regularly performed quality control tests (retests).

Further content

Identity

Purity

Final result

Revision table

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Identity

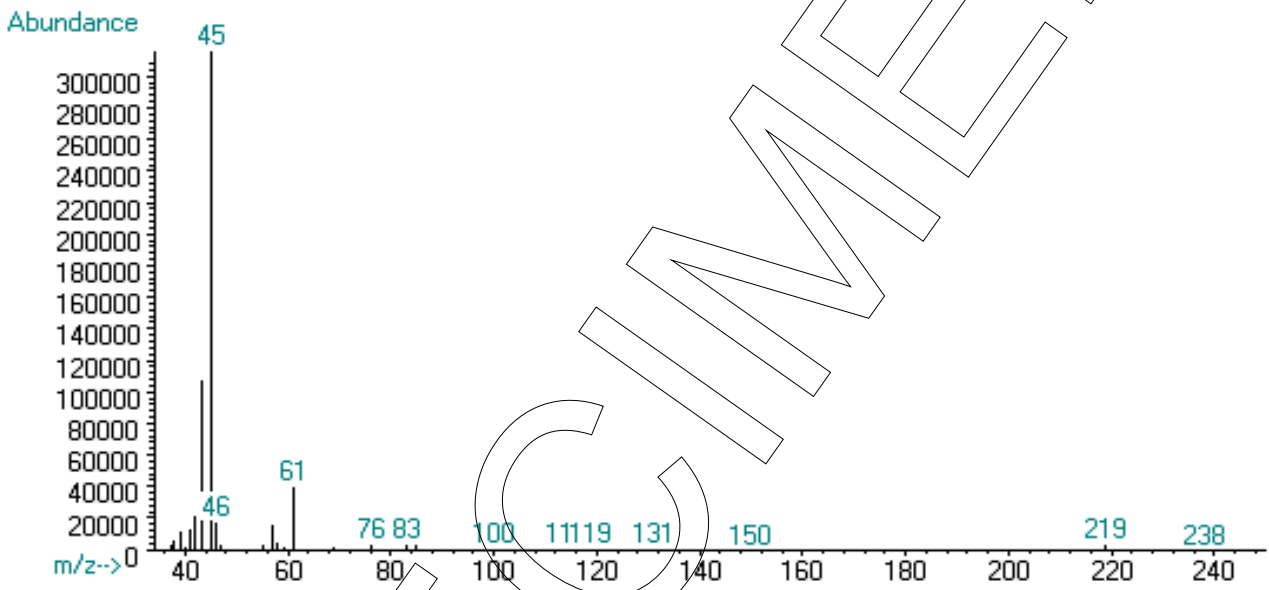
The identity of the reference material was established by following analyses.

Method	Conditions	Result
¹ H-NMR	400 MHz, CDCl ₃	Structure confirmed





Method	Conditions	Result
MS	EI, 70eV, detector temperature: 280 °C	Structure confirmed



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Purity

Volatile content

Water content

Method	Karl Fischer titration
Result (n = 3)	0.22 %; SD = 0.03 %

Residual solvents

Method	¹ H-NMR
Result (n = 1)	No significant amounts of residual solvents were detected (< 0.05 %).

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Final result

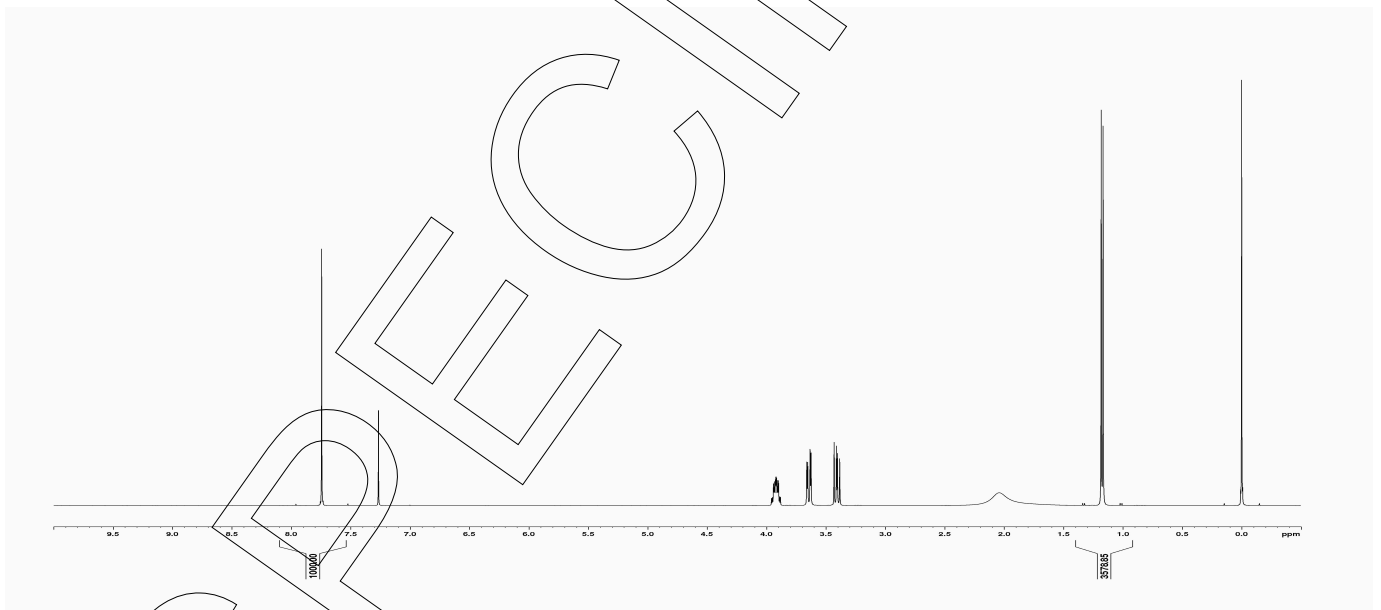
Assay "as is": **99.06 %**

The assay "as is" is assessed by quantitative NMR spectroscopy and is equivalent to the assay based on the not anhydrous and not dried substance respectively.

Method: Value assigning technique - quantitative NMR spectroscopy

Conditions	400 MHz, CDCl ₃
Internal standard	2,3,5,6-Tetrachloro-1-nitrobenzene (certified reference material), signal 7.5 - 8.1 ppm, 1 H
Result (mass fraction, n = 3)	99.06 %; SD = 0.12 %

Quantitative NMR spectrum





Revision table

Revision	Date	Reason for revision
00	02 Oct 2019	Release of the Certificate of Analysis - initial version

Product warranties for the RM are set out in the terms and conditions of purchase.

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