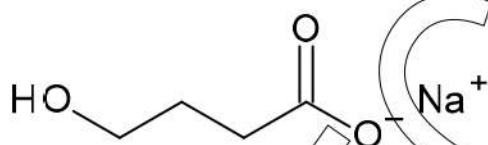


Certificate of Analysis

Reference Standard

GHB Sodium Salt (Sodium
Gammahydroxybutyrate)



Molecular Formula: $C_4H_7NaO_3$
Molecular Weight: 126.09
CAS Number: 502-85-2

Catalogue Number: LGCFOR1355.00
Lot Number: 1054539
Long-term Storage: 2 to 8 °C, dark
Appearance: white solid
very hygroscopic
Melting Point: 147 °C
Assay 'as is': 99.7 %

Date of shipment: **2020-November-30**

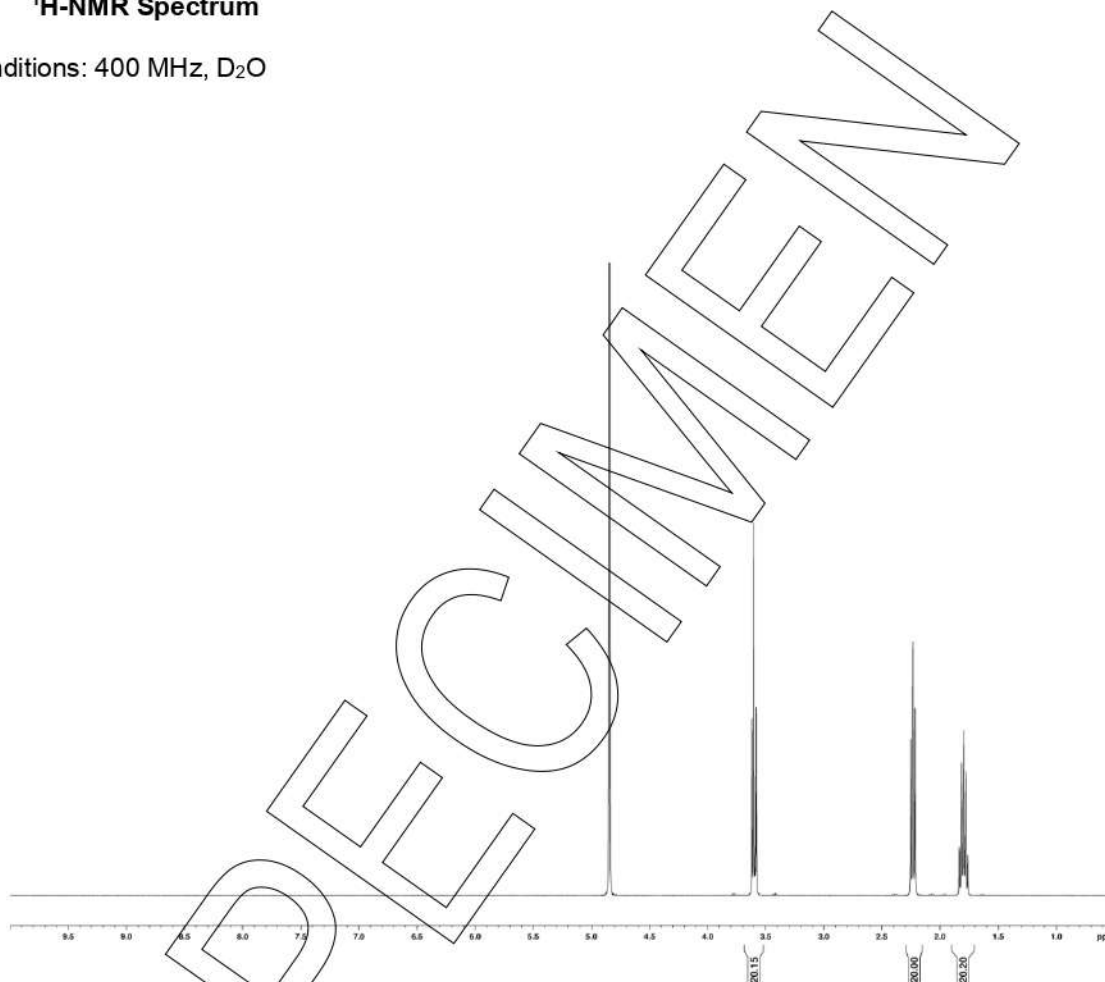
This certificate is valid for one year from the date of shipment provided the substance is stored under the recommended conditions unopened in the original container.

I. Identity

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

1a. $^1\text{H-NMR}$ Spectrum

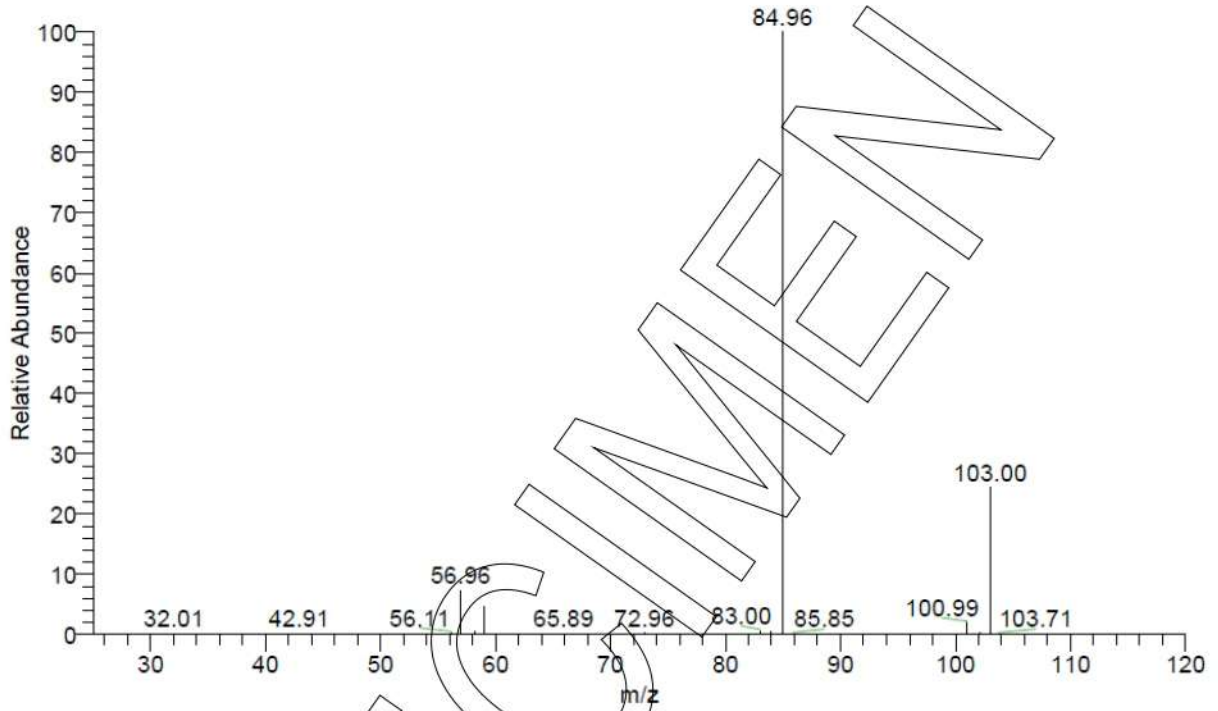
Conditions: 400 MHz, D_2O



The structure is confirmed by the signals of the spectrum and their interpretation.

Ib. Mass Spectrum

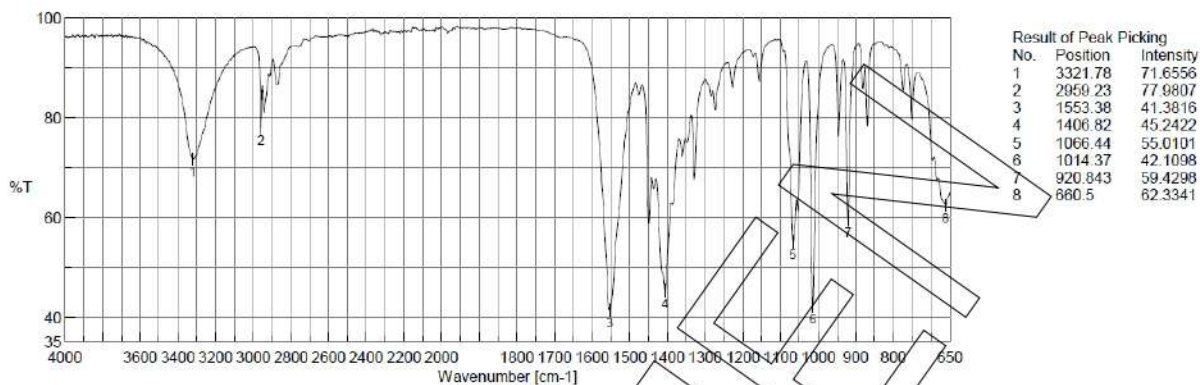
Method: 4.5 kV ESI-; vaporization temperature: 200 °C



The signals of the mass spectrum and their interpretation are consistent with the structural formula.

Ic. IR Spectrum

Method: Attenuated Total Reflection Fourier Transform Infrared (ATR-FTIR) Spectroscopy



The signals of the IR spectrum and their interpretation are consistent with the structural formula.

II. Purity

IIa. Water Content

Method: Karl Fischer titration

Results:

Average 0.09 %

Number of results n=3

Standard deviation 0.04 %

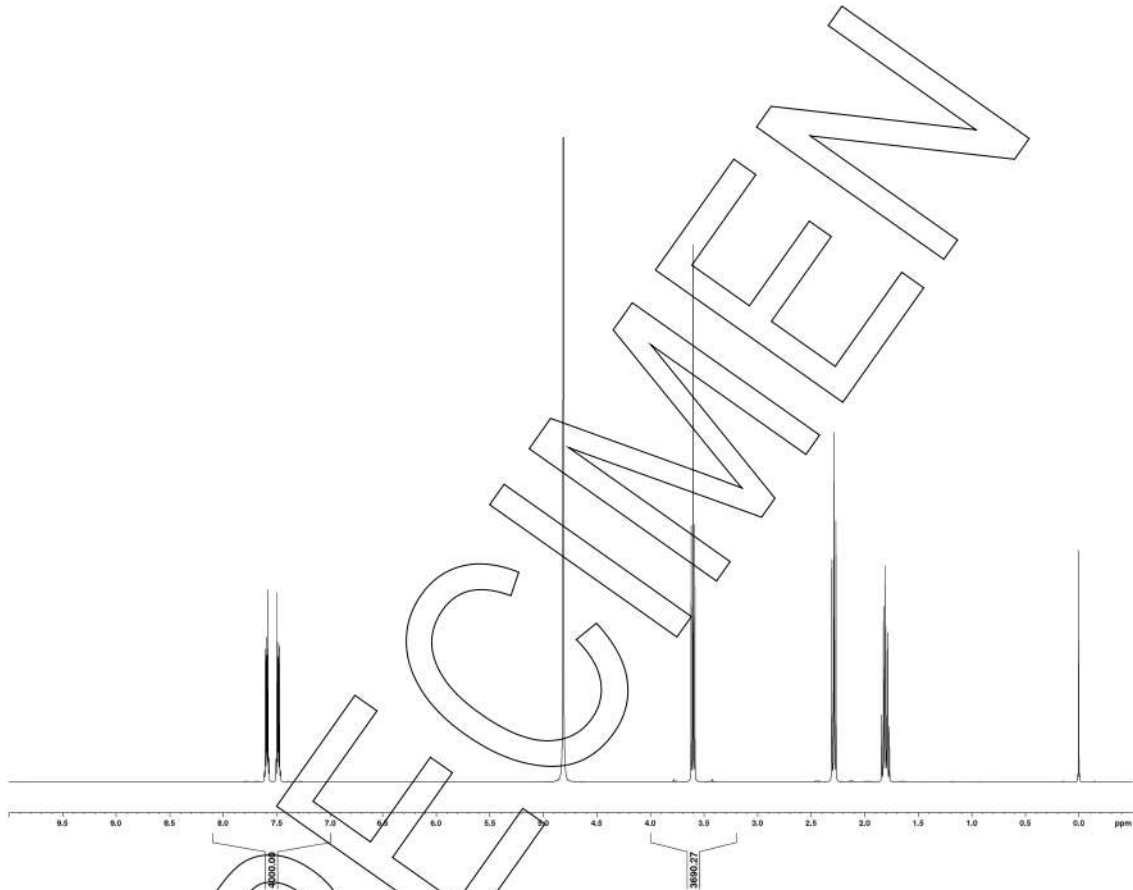
IIb. Residual Solvents

Method: ¹H-NMR

No significant amounts of residual solvents were detected (< 0.05 %).

III. Assay by quantitative NMR spectroscopy

The assay of the reference substance was established by quantitative NMR spectroscopy using D₂O as the solvent and with Potassium hydrogen phthalate (certified reference material, signal 7.0 – 8.1 ppm, 4 H) as internal standard.



Results:

Average	99.67 %
Number of results	n=6
Standard deviation	0.24 %

IV. Final Result

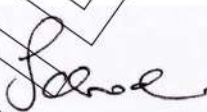
Water content	0.09 %
Residual solvents	No significant amounts of residual solvents were detected (< 0.05 %).
Assay (quantitative NMR spectroscopy)	99.67 %

The assay is assessed to be 99.7 % 'as is'

The assay 'as is' is equivalent to the assay based on the not anhydrous and not dried substance respectively.

Release Date:

Luckenwalde, 2020-01-28



Dr. Sabine Schröder
Product Release

SPECIMEN