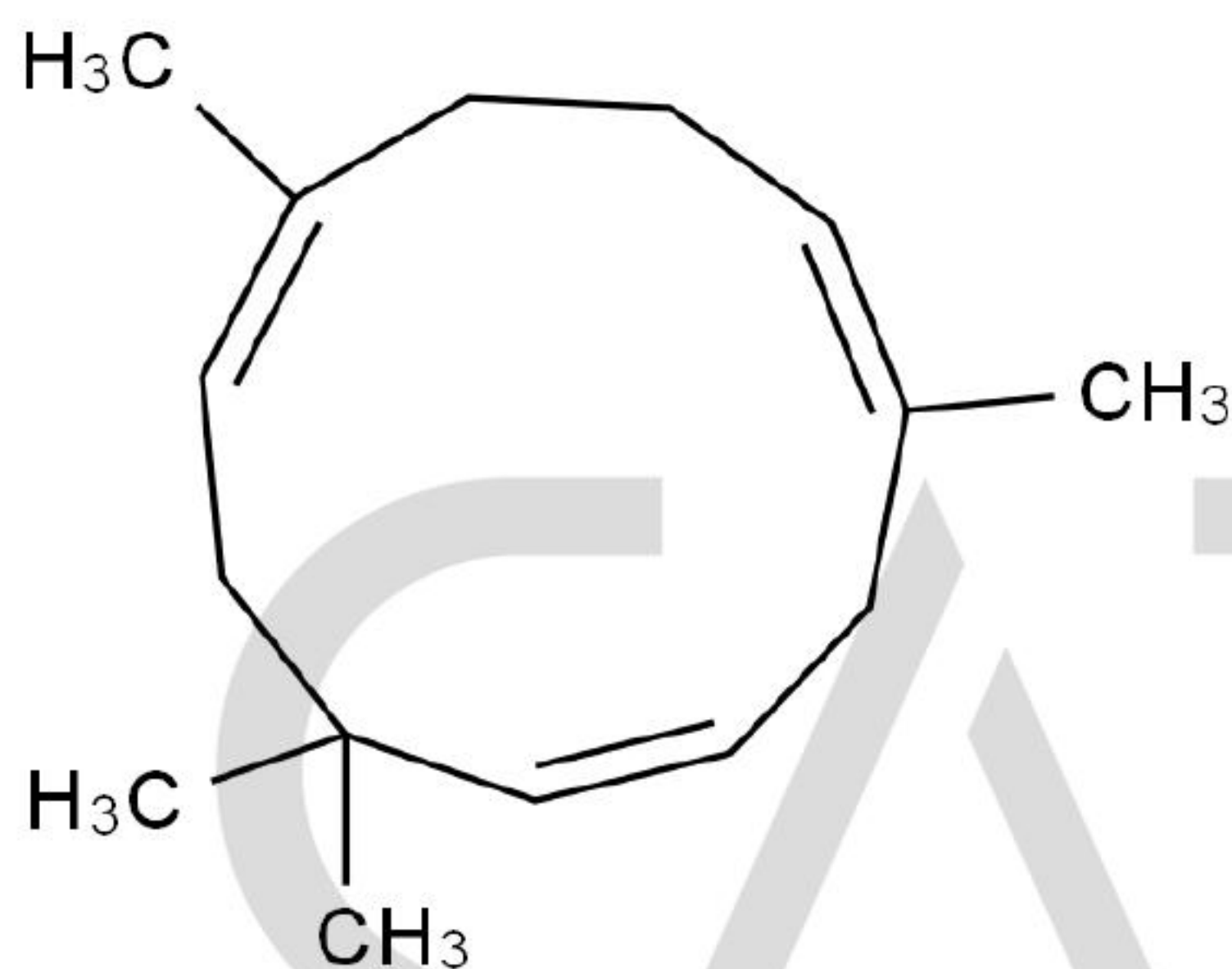


Certificate of Analysis

Reference Material & Standard

Product Name:	Alpha-Humulene	Catalogue Number:	CCHM701108
Synonyms:	N/A	Lot Number:	0801-RD-0058
CAS Number:	6753-98-6	Expiry Date:	Aug 20, 2029
Molecular Formula:	C ₁₅ H ₂₄	Storage:	-20°C±5°C Protected from light and Sealed
Molecular Weight:	204.35	Warning:	

Chemical Structure:



Test Items	Method	Results
Appearance	Visual inspection	Colourless Liquid
Identification	GCMS&CNMR&HNMR	Confirmed
Purity	GC	98.020%
Water Content	Karl Fischer	0.1322%
Assay		97.9%
Uncertainty		±0.4%

Comment:

1. The calculation of the 100% method follows the formula (calculated on the non-dried basis):

Assay (%) = (100% - Water Content) * Purity GC (%) / 100%

Water Content is considered as absolute effect, GC purity is considered as relative effect.

2. The uncertainty values are the expanded uncertainty and represent an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Signature:

Prepared by:

Nice

Reviewed by:

Hinlam

Approved by General Manager:

David

Date: Aug 21, 2025

Date: Aug 22, 2025

Date: Aug 22, 2025

