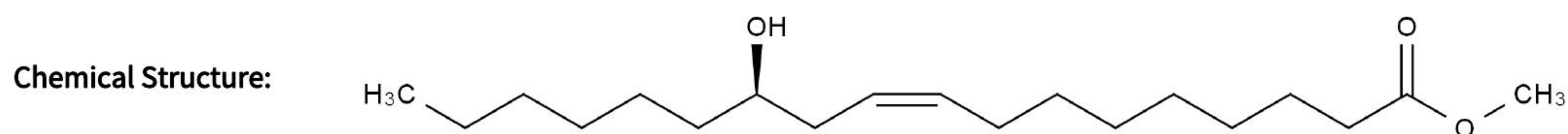


Certificate of Analysis

Reference Material & Standard

Product Name:	Ricinoleic Acid Methyl Ester	Catalogue Number:	CCFD200229
Synonyms:	N/A	Lot Number:	0522-RH-0064
CAS Number:	141-24-2	Expiry Date:	May 25, 2030
Molecular Formula:	C ₁₉ H ₃₆ O ₃	Storage:	2°C ~ 8°C Protected from light and Sealed
Molecular Weight:	312.49	Shipping Condition:	Shipping at Room Temperature



Test Items	Method	Results
Appearance	Visual inspection	Colourless Liquid
Identification	GCMS&IR&UV&HNMR	Confirmed
Purity	GC	99.607%
Loss on Drying	TGA	0.4077%
Assay		99.2%
Uncertainty		±0.2%

Comment:

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

$\text{Assay (\%)} = (100\% - \text{Loss on Drying}) * \text{Purity GC (\%)} / 100\%$

Loss on Drying 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:

Lisa

Approved by General Manager:

David

Date: Jul 27, 2026

Date: Jul 27, 2026

Date: Jul 27, 2026



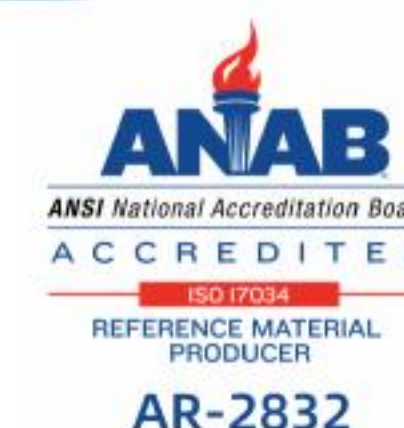
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Page 1 of 9



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