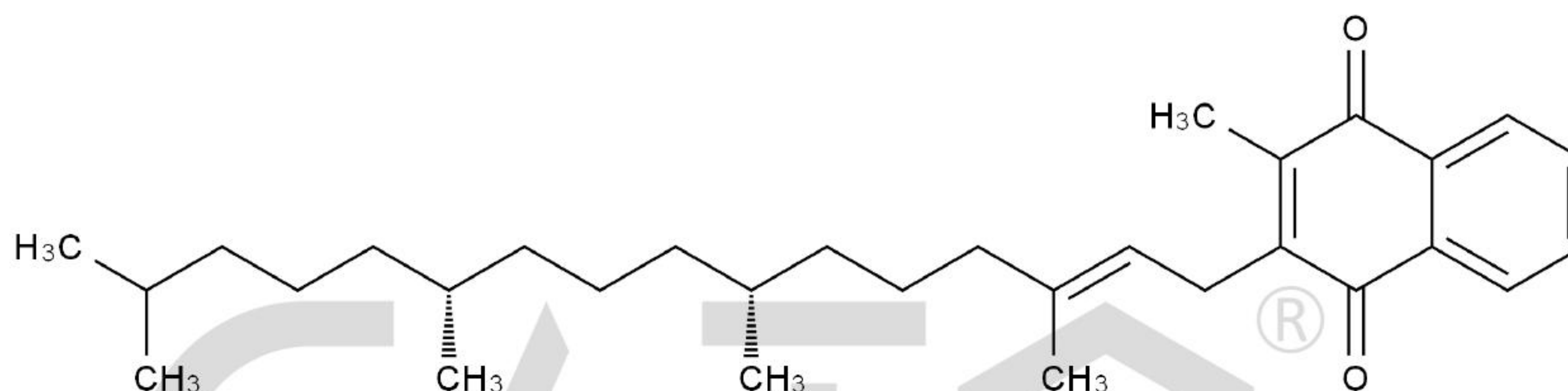


Certificate of Analysis

Reference Material & Standard

Product Name:	Vitamin K1	Catalogue Number:	CCFD200278
Synonyms:	N/A	Lot Number:	1117-RG-0139
CAS Number:	84-80-0	Expiry Date:	Nov 19, 2029
Molecular Formula:	C ₃₁ H ₄₆ O ₂	Storage:	2°C ~ 8°C Protected from light and Sealed
Molecular Weight:	450.70	Shipping Condition:	Shipping at Room Temperature

Chemical Structure:



Test Items	Method	Results
Appearance	Visual inspection	Yellow Oil
Identification	LCMS&HNMR	Confirmed
Purity	HPLC	97.037%
Water Content	Karl Fischer	0.1784%
Assay		96.9%
Uncertainty		±0.6%

Comment:

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

$$\text{Assay (\%)} = (100\% - \text{Water Content}) * \text{Purity HPLC (\%)} / 100\%$$

Water Content is considered as absolute effect, HPLC purity is considered as relative effect.
- 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: Nov 20, 2025

Date: Nov 20, 2025

Date: Nov 20, 2025



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