

Certificate of Analysis

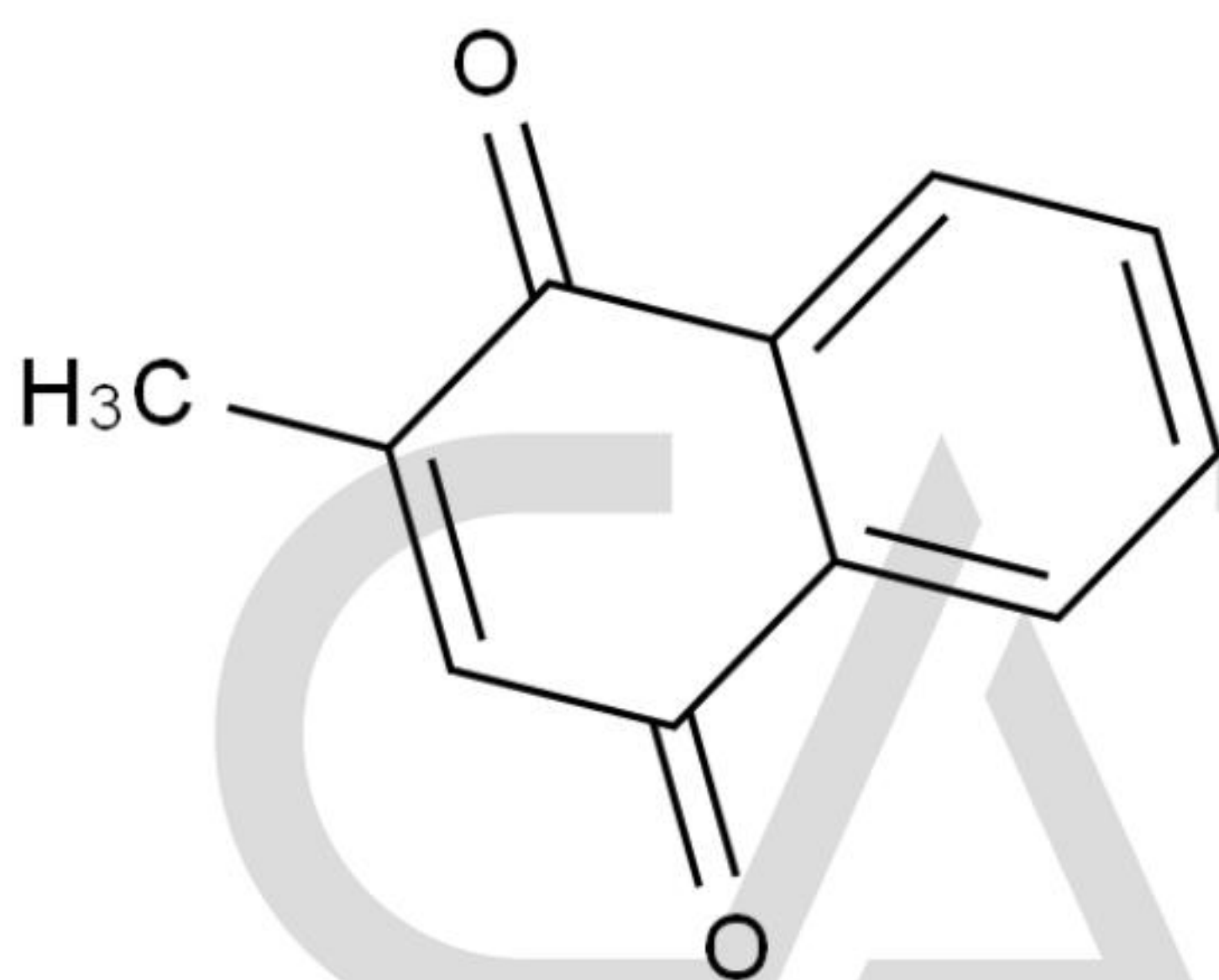
Reference Material & Standard

Product Name:	Menadione (Vitamin K3)	Catalogue Number:	CCFD200176
Synonyms:	N/A	Lot Number:	1116-RE-0045
CAS Number:	58-27-5	Expiry Date:	Nov 13, 2029
Molecular Formula:	C ₁₁ H ₈ O ₂	Storage:	2°C ~ 8°C Protected from light and Sealed
Molecular Weight:	172.18	Shipping Condition:	Shipping at Room Temperature

Warning:



Chemical Structure:



Test Items	Method	Results
Appearance	Visual inspection	Yellow Solid
Identification	LCMS&HNMR	Confirmed
Purity	HPLC	99.793%
Loss On Drying	TGA	0.3007%
Assay		99.5%
Uncertainty		±0.2%

Comment:

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

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

Loss On Drying is considered as absolute effect, HPLC 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:

Lisa

Reviewed by:

Hin Lam

Approved by General Manager:

David

Date: Nov 14, 2025

Date: Nov 15, 2025

Date: Nov 15, 2025



Add: 3rd Floor, Building B, No.179, Guangpu Rd East, Huangpu District, Guangzhou, China

Tel: +86-20-81960175

Email: supports@cato-chem.com

Web: <https://www.cato-chem.com>

