

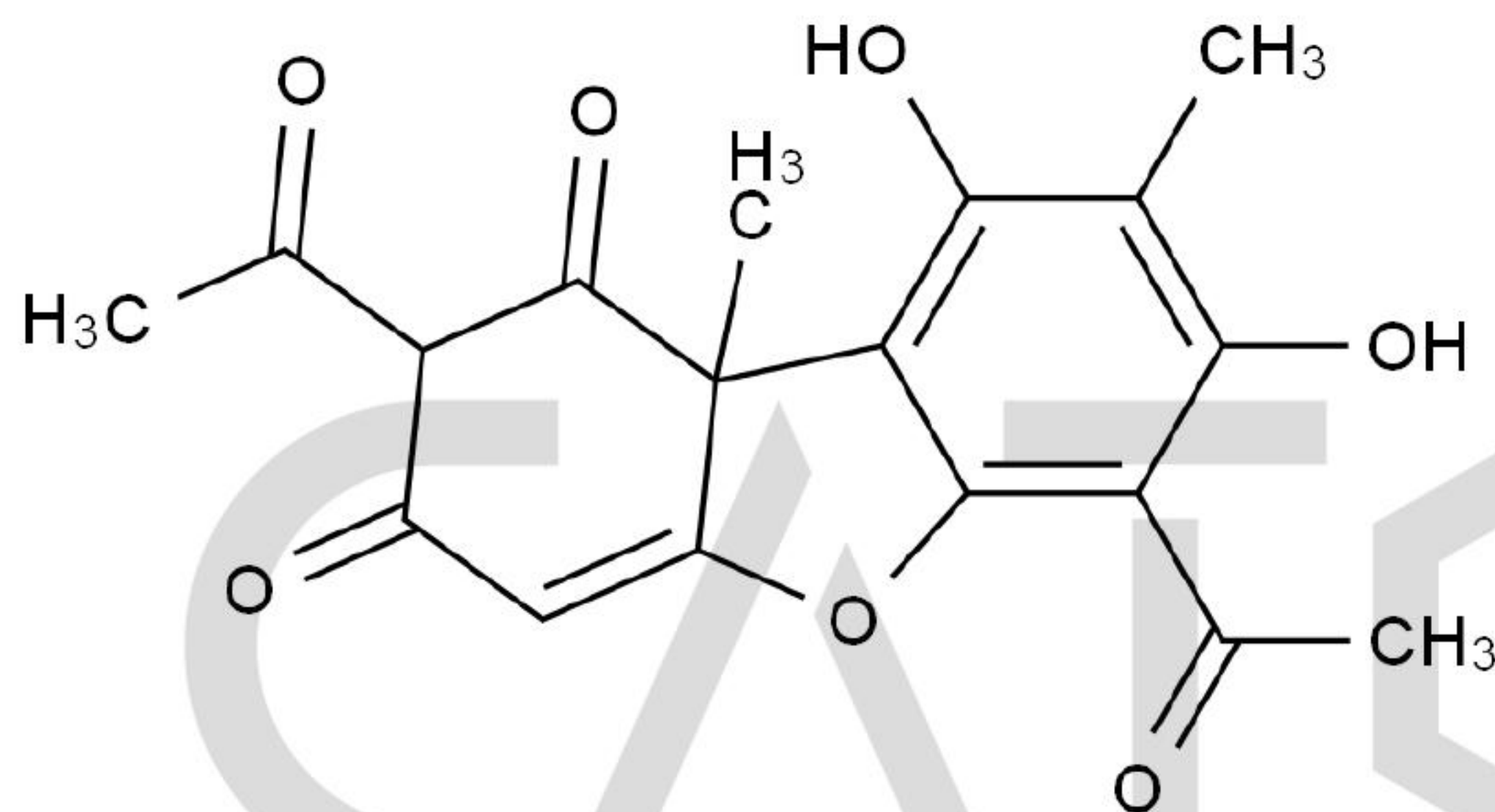
Certificate of Analysis

Reference Material & Standard

Product Name:	Usnic acid	Catalogue Number:	CCAD301026
Synonyms:	N/A	Lot Number:	0918-RE-0064
CAS Number:	125-46-2	Expiry Date:	Sep 25, 2027
Molecular Formula:	C ₁₈ H ₁₆ O ₇	Storage:	Room Temp Protected from light and Sealed
Molecular Weight:	344.32	Warning:	



Chemical Structure:



Test Items	Method	Results
Appearance	Visual inspection	Yellow Solid
Identification	LCMS&HNMR	Confirmed
Purity	HPLC	99.264%
Loss On Drying	TGA	0.1814%
Assay		99.1%
Uncertainty		±2.0%

Comment:

1. The calculation of the 100% 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:

Nice

Reviewed by:

Lisa

Aproved by General Manager:

David

Date: Sep 26, 2023

Date: Sep 26, 2023

Date: Sep 26, 2023

