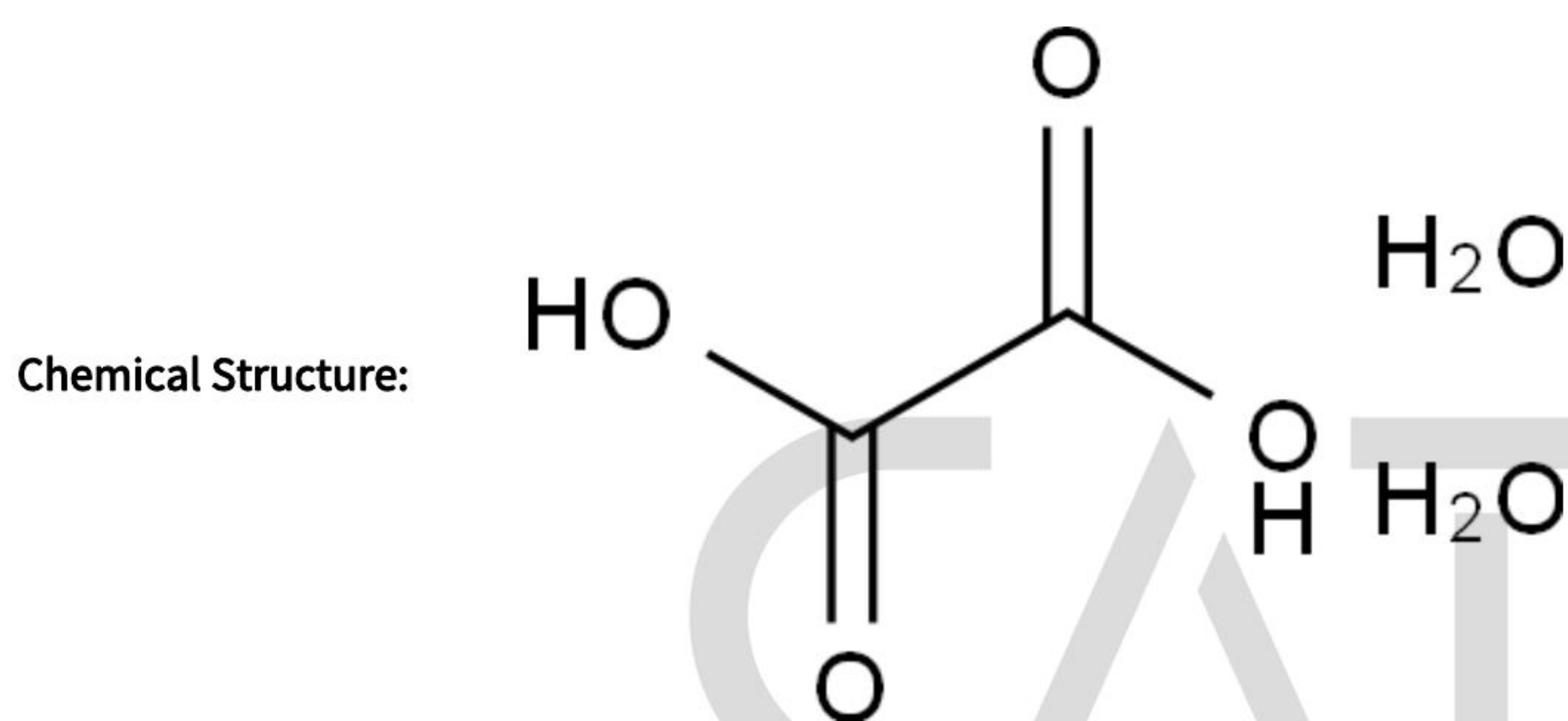


Certificate of Analysis

Reference Material & Standard

Product Name:	Oxalic Acid Dihydrate	Catalogue Number:	CCFD201154
Synonyms:	N/A	Lot Number:	1227-RF-0048
CAS Number:	6153-56-6	Expiry Date:	Dec 26, 2028
Molecular Formula:	C ₂ H ₂ O ₄ 2*H ₂ O	Storage:	Room Temp Protected from light and Sealed
Molecular Weight:	90.03 2*18.02		



Test Items	Method	Results
Appearance	Visual inspection	White Solid
Identification	LCMS	Confirmed
Purity	HPLC	99.067%
Water Content	Karl Fischer	28.8372%
Water Content(Free Water)		0.2499%
Assay		98.8%
Uncertainty		±2.0%

Comment:

- The content of crystal water is 28.5873%.
- The calculation of the 100% method follows the formula (calculated on the non-dried basis):

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

Lisa

Reviewed by:

Hinlam

Approved by General Manager:

David

Date: Dec 27, 2024

Date: Dec 27, 2024

Date: Dec 27, 2024

