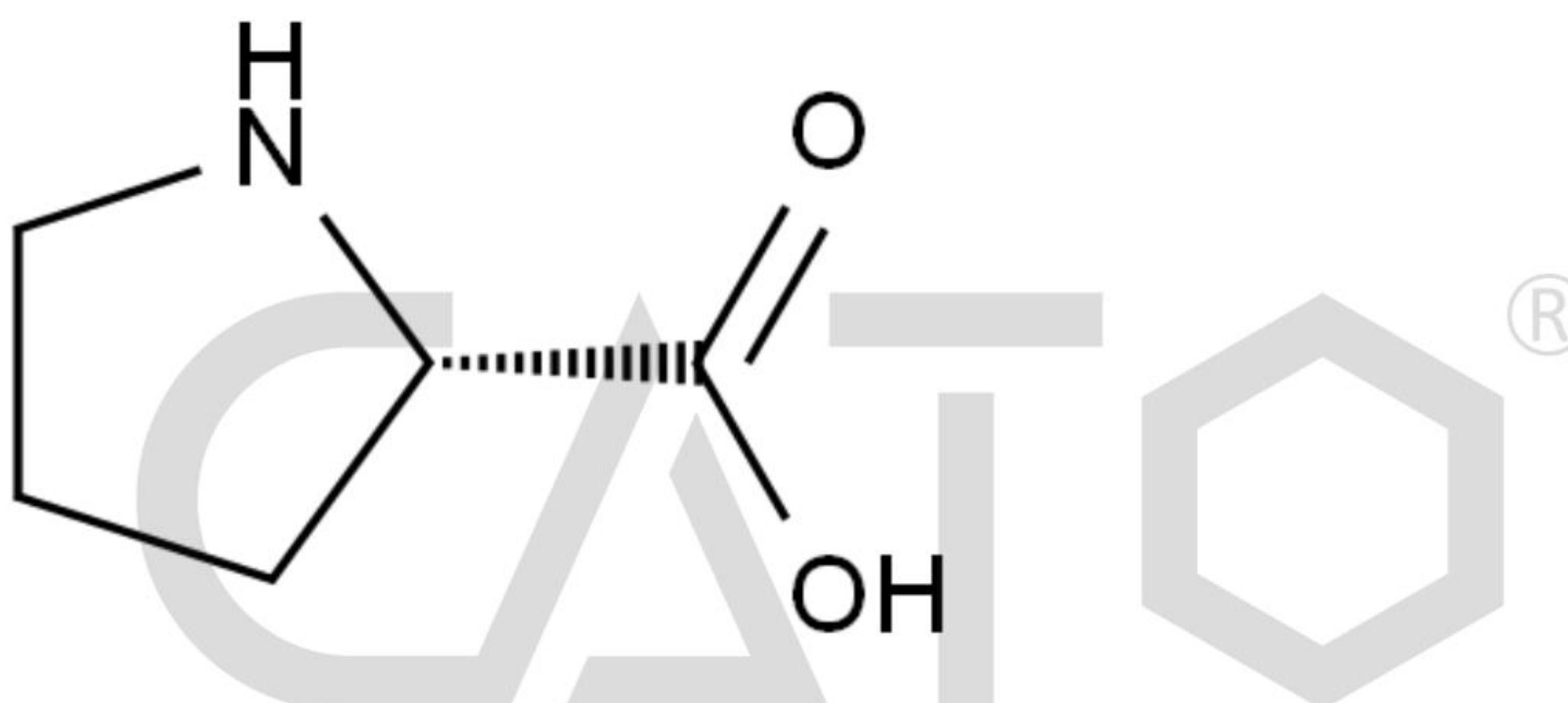


Certificate of Analysis

Reference Material & Standard

Product Name:	L-Proline	Catalogue Number:	CCFD200160
Synonyms:	N/A	Lot Number:	0814-RG-0014
CAS Number:	147-85-3	Expiry Date:	Aug 13, 2029
Molecular Formula:	C ₅ H ₉ NO ₂	Storage:	Room Temp Protected from light and Sealed
Molecular Weight:	115.13		

Chemical Structure:



Test Items	Method	Results
Appearance	Visual inspection	White Solid
Identification	LCMS&IR&UV&HNMR	Confirmed
Purity	ELSD	95.982%
Loss On Drying	TGA	0.0959%
Assay		95.9%
Uncertainty		±0.8%

Comment:

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

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

Loss On Drying is considered as absolute effect, ELSD 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: Sep 29, 2025

Date: Sep 29, 2025

Date: Sep 29, 2025

