



CERTIFICATE OF ANALYSIS

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1. Identification

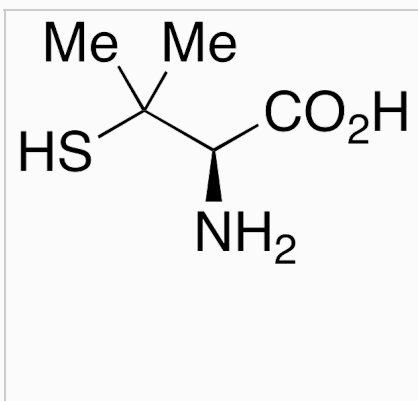
Catalogue Number: P223005

CAS Number: 1113-41-3

Product: L-Penicillamine

Synonym: 3-Mercapto-L-valine; (+)-Penicillamine; (R)-Penicillamine; L-Penicillamine; NSC 241261;

Structure:



Molecular Formula:

C₅H₁₁NO₂S

Molecular weight:

149.21

Source of Product:

N/A

Solubility:

Aqueous Base (Sparingly),
DMSO (Slightly, Heated),
Water (Slightly)

Lot Number: 1-FGD-594-1

Purity: 98%

Shipping Condition: This Product Is Stable To Be Shipped At Room Temperature

Storage Condition: 4°C

2. Warning

Warning 1:

Warning 2:

Warning 3:

3. Analytical Information

Tests:	Specifications:	Results:
Appearance	White to Off-White Solid	White Solid
Elemental Analysis	Conforms	%C: 40.45, %H: 7.51, %N: 9.43
HPLC Purity	Report Result	100.00% (ELSD)
NMR	Conforms to Structure	Conforms
C NMR	Conforms to Structure	Conforms
MS	Conforms to Structure	Conforms
Specific Rotation	Report Result	+59.8° (c = 1.0, 1N NaOH)

Additional Information: N/A

Purity is based on the analytical results of the tests performed. NMR and Elemental Analysis (if available) may have an accuracy of ± 2%. Isotopic purity is based on mass distribution observed. The contents of the specifications are subject to change without advance notice, and the specification values displayed here are the most up to date values.

4. Signatures

Reviewed By	Reviewed By	C of A Approved By	Test Date	Retest Date
Evan Burns	Toni Rantanen	Chanell Chu	6/15/2021	6/13/2025