

# *Chem-Impex International, Inc.*

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**Manufacturing site:**

825 Dillon Drive

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## *Certificate of Analysis*

<b>Catalogue Number</b>	02590
<b>Product</b>	<b>L-Penicillamine</b>
<b>Lot Number</b>	001048-0010724
	L-Pen-OH
	L-2-Amino-3-mercapto-3-methylbutanoic acid
<b>CAS Number</b>	1113-41-3
<b>Molecular Formula</b>	C <sub>5</sub> H <sub>11</sub> NO <sub>2</sub> S
<b>Molecular Weight</b>	149.2

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<b>Appearance</b>	White crystalline powder
<b>Solubility</b>	Freely soluble in water, slightly soluble in 95% ethanol
<b>Heavy Metals</b>	< 20 ppm
<b>pH</b>	4.6
<b>Optical Rotation</b>	[α] <sub>D</sub> <sup>20</sup> = 63.3 ° (C=1 in 1M NaOH)
<b>Infrared Spectrum</b>	Conforms to structure
<b>Loss on Drying</b>	0.14% (100 mg, vacuum at 60 °C)
<b>Residual Solvents</b>	Methanol : 575 ppm Methylene dichloride : Not detected Acetone : Not detected Triethylamine : Not detected
<b>Residue On Ignition</b>	0.03%
<b>Purity by HPLC</b>	99.5% (On dried basis)
<b>Storage</b>	Store at RT
<b>Country of Origin</b>	India

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**Remarks**

See material safety data sheet for additional information

For laboratory use only

**The foregoing is a copy of the Certificate of Analysis as provided by our supplier**



**Bala Kumar**  
**Quality Control Manager**