

# *Chem-Impex International, Inc.*

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825 Dillon Drive

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## *Certificate of Analysis*

<b>Catalogue Number</b>	11062
<b>Lot Number</b>	000127-1041878
<b>Product</b>	<b>Cyclo(L-Ser-L-Ser)</b>

Cyclo(-Ser-Ser)

<b>CAS Number</b>	23409-30-5
<b>Molecular Formula</b>	C <sub>6</sub> H <sub>10</sub> N <sub>2</sub> O <sub>4</sub>

<b>Molecular Weight</b>	174.16
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<b>Appearance</b>	White powder
<b>Solubility</b>	Clear, colorless solution (10 mg/mL in 80% Acetic acid)
<b>Melting Point</b>	243 °C
<b>Elemental Analysis (Theory)</b>	C = 41.4%; H = 5.8%; N = 16.1%
<b>Elemental Analysis (Found)</b>	C = 41.5%; H = 5.6%; N = 16.2%
<b>Water Content (Karl Fisher)</b>	0.1%
<b>TLC System</b>	Chloroform/Methanol/Acetic acid 32% (5:3:1) n-Butanol/Acetic acid/H <sub>2</sub> O (4:2:2) Ethylacetate/Pyridine/Acetic acid/H <sub>2</sub> O (6:4:1:3) Plate: silicagel 60 F <sub>254</sub> Detected by: UV, ninhydrin, chlorine-tolidine
<b>Optical Rotation</b>	[α] <sub>D</sub> <sup>24</sup> = +38.4° (C=0.1% in Acetic acid)
<b>Assay</b>	100.4% (Elemental analysis: Nth 16.08%, Nfd 16.15%)
<b>Purity by TLC</b>	> 99%
<b>Storage</b>	Store at ≤ -4 °C

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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**

A handwritten signature in black ink, appearing to read 'Bala Kumar', with a stylized flourish at the end.

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