

# Chem-Impex International, Inc.

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## Certificate of Analysis

<b>Catalogue Number</b>	02260
<b>Product</b>	<b>Z-L-threonine methyl ester</b>
<b>Lot Number</b>	120618-12600 Z-L-Thr-OMe
<b>CAS Number</b>	57224-63-2
<b>Molecular Formula</b>	C <sub>13</sub> H <sub>17</sub> NO <sub>5</sub>
<b>Molecular Weight</b>	267.3
<b>Appearance</b>	White powder
<b>Solubility</b>	Clear solution (0.3 g in 2mL MeOH)
<b>Melting Point</b>	91.7-92.3 °C
<b>Water Content (Karl Fisher)</b>	0.36%
<b>Optical Rotation</b>	[α] <sub>D</sub> <sup>20</sup> = -18.0° (C=1 in MeOH)
<b>Infrared Spectrum</b>	Conforms to structure
<b>Analysis by Mass Spectra</b>	Conforms to standard
<b>Loss on Drying</b>	0.29%
<b><sup>1</sup>H NMR</b>	Conforms to structure
<b>Purity by HPLC</b>	98.66%
<b>Storage</b>	Store at 0-8 °C
<b>Remarks</b>	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