

# Chem-Impex International, Inc.

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## Certificate of Analysis

<b>Catalogue Number</b>	12218
<b>Lot Number</b>	000424-140424-11417
<b>Product</b>	<b>Z-L-aspartic acid <math>\beta</math>-tert-butyl ester <math>\alpha</math>-methyl ester</b> Z-L-Asp(OtBu)-OMe
<b>CAS Number</b>	63327-57-1
<b>Molecular Formula</b>	C <sub>17</sub> H <sub>23</sub> NO <sub>6</sub>
<b>Molecular Weight</b>	337.36

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<b>Appearance</b>	White powder
<b>Solubility</b>	Clear solution (0.3g in 2mL DMF)
<b>Melting Point</b>	41.4-41.5 °C
<b>Water Content (Karl Fisher)</b>	0.086%
<b>Optical Rotation</b>	$[\alpha]_D^{20} = -22.7^\circ$ (C=1 in DMF)
<b>Infrared Spectrum</b>	Conforms to structure
<b>Analysis by Mass Spectra</b>	Conforms to standard
<b><sup>1</sup>H NMR</b>	Conforms to structure
<b>Purity by HPLC</b>	98.01%
<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