

# Chem-Impex International, Inc.

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## Certificate of Analysis

<b>Catalogue Number</b>	04438
<b>Lot Number</b>	000424-170625-11846
<b>Product</b>	<b>L-Leucine allyl ester 4-toluenesulfonate salt</b>  L-Leu-OAll•TosOH
<b>CAS Number</b>	88224-03-7
<b>Molecular Formula</b>	C <sub>9</sub> H <sub>17</sub> NO <sub>2</sub> •C <sub>7</sub> H <sub>8</sub> O <sub>3</sub> S
<b>Molecular Weight</b>	344.65

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<b>Appearance</b>	White powder
<b>Solubility</b>	Clear solution (0.3 gram in 2 ml DMF)
<b>Melting Point</b>	123.8-125.4 °C
<b>Water Content (Karl Fisher)</b>	0.217%
<b>Optical Rotation</b>	[α] <sub>D</sub> <sup>20</sup> = + 6.3 ° (C=1 in CHCl <sub>3</sub> )
<b>Infrared Spectrum</b>	Conforms to structure
<b>Analysis by Mass Spectra</b>	Conforms to standard
<b>Loss on Drying</b>	0.27% (60°C, 2h)
<b><sup>1</sup>H NMR</b>	Conforms to structure
<b>Purity by HPLC</b>	98.04%
<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