

# Chem-Impex International, Inc.

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825 Dillon Drive

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## Certificate of Analysis

<b>Catalogue Number</b>	02261
<b>Lot Number</b>	000424-190613-11202
<b>Product</b>	<b><i>N</i><sup>α</sup>-Z-L-tryptophan</b>

Z-L-Trp-OH

<b>CAS Number</b>	7432-21-5
<b>Molecular Formula</b>	C <sub>19</sub> H <sub>18</sub> N <sub>2</sub> O <sub>4</sub>
<b>Molecular Weight</b>	338.4

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<b>Appearance</b>	Off-white powder
<b>Solubility</b>	Clear solution (1 g in 10 mL MeOH)
<b>Melting Point</b>	123.9 - 124.6 °C
<b>Elemental Analysis (Found)</b>	< 5.0% (C, H, N)
<b>Water Content (Karl Fisher)</b>	0.108%
<b>Optical Rotation</b>	[α] <sup>20</sup> <sub>D</sub> = -35.8 ° (C=1 in DMF)
<b>Infrared Spectrum</b>	Conforms to Structure
<b>Analysis by Mass Spectra</b>	Conforms to standard
<b>Loss on Drying</b>	0.150% (60 °C, 2h)
<b><sup>1</sup>H NMR</b>	Conforms to structure
<b>Chiral HPLC</b>	99.98%
<b>D-Enantiomer</b>	0.0101%
<b>Purity by HPLC</b>	99.94%
<b>Storage</b>	Store at 0 - 8 °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**



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