

# *Chem-Impex International, Inc.*

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Manufacturing site:

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## Certificate of Analysis

<b>Catalog Number</b>	06517
<b>Product Name</b>	Z-Leu-CMK Z-L-leucine chloromethylketone
<b>Lot Number</b>	0545039
<b>Molecular Formula</b>	C <sub>15</sub> H <sub>20</sub> NO <sub>3</sub> Cl
<b>Molecular Weight</b>	297.8 g/mol
<b>Appearance</b>	White powder
<b>Solubility</b>	Clear, colorless solution (50mg/ml in Ethylacetate)
<b>Optical Rotation</b>	$\alpha_D^{24} = -36.6^\circ$ (5% in ethylacetate)
<b>Melting Point</b>	35-36°C
<b>Elemental Analysis (Found)</b>	C 60.31%, H 6.82%, N 4.76%
<b>Elemental Analysis (theory)</b>	C 60.50%, H 6.77%, N 4.70%
<b>ESI-MS</b>	M = 297.4 u
<b>Assay (TLC)</b>	
<b>Chloroform/EtOAc 9/1 (v/v)</b>	detected by: UV, Ninhydrin, Chlorine-tolidine
<b>Ethylacetate/hexane 2/8 (v/v)</b>	
<b>Benzene/dioxane/acetic acid 95/25/4 (v/v/v)</b>	
<b>Plate Silicagel 60 F<sub>254</sub></b>	
<b>Purity (TLC)</b>	>99%
<b>Storage</b>	Store at 0-5°C.
<b>Remarks</b>	See material safety data sheets 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 'Sashi Kumar', written in a cursive style with a long horizontal stroke extending to the left.

**Sashi Kumar**  
**Quality Control Manager**