

# *Chem-Impex International, Inc.*

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## Certificate of Analysis

<b>Catalog Number</b>	04458
<b>Product Name</b>	H-Val-OAll•TosOH L-Valine allyl ester p-toluenesulfonate salt
<b>Lot Number</b>	11339-1
<b>Molecular Formula</b>	C <sub>8</sub> H <sub>15</sub> NO <sub>2</sub> •C <sub>7</sub> H <sub>8</sub> O <sub>3</sub> S
<b>Molecular Weight</b>	329.4
<b>Appearance</b>	White Powder
<b>Melting Point</b>	120°C
<b>Loss on Drying</b>	< 0.1%
<b>Free Amino Acids</b>	< 0.2%
<b>Other Enantiomer</b>	< 0.5%
<b>Optical Rotation (NaD)</b>	6.0° (C = 1 in MeOH)
<b>Purity (HPLC)</b>	97.8%
<b>HPLC-Column</b>	RP-HD-Sil-C18
<b>HPLC-System</b>	Linear gradient- flow 1 mL/min- detection at 210 nm
<b>HPLC-Buffer</b>	A: TEAP-buffer pH 2.25 B: CH <sub>3</sub> CN/A 70/30
<b>HPLC-Gradient</b>	20% B to 50% B in 30 min
<b>TLC-System</b>	CHCl <sub>3</sub> :MeOH:AcOH 85:10:5
<b>TLC-Concentration</b>	25 mg/mL
<b>Comments</b>	Impurities < 2%
<b>Storage</b>	Store at 0-8 °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

*Sashi Kumar*

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