

# Chem-Impex International, Inc.

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## Certificate of Analysis

<b>Catalogue Number</b>	03034
<b>Lot Number</b>	000424-140519-13072
<b>Product</b>	<b><i>N</i><sup>α</sup>-Tosyl-L-arginine methyl ester hydrochloride</b> Tos-L-Arg-OMe•HCl
<b>CAS Number</b>	1784-03-8
<b>Molecular Formula</b>	C <sub>14</sub> H <sub>22</sub> N <sub>4</sub> O <sub>4</sub> S•HCl
<b>Molecular Weight</b>	378.9

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<b>Appearance</b>	White powder
<b>Solubility</b>	Clear solution (0.3 g in 2 mL MeOH)
<b>Melting Point</b>	146.2-147.4 °C
<b>Water Content (Karl Fisher)</b>	0.388%
<b>Optical Rotation</b>	[α] <sub>D</sub> <sup>20</sup> = +10.2° (C=1 in EtOH)
<b>Infrared Spectrum</b>	Conforms to structure
<b>Analysis by Mass Spectra</b>	Conforms to structure
<b>Loss on Drying</b>	0.45%
<b><sup>1</sup>H NMR</b>	Conforms to structure
<b>Purity by HPLC</b>	98.86%
<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**