

# Chem-Impex International, Inc.

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## Certificate of Analysis

<b>Catalogue Number</b>	01329
<b>Lot Number</b>	130824-30203
<b>Product</b>	<b>N<sup>α</sup>-Boc-D-arginine hydrochloride hydrate</b> Boc-D-Arg-OH•HCl•H <sub>2</sub> O
<b>CAS Number</b>	113712-06-4 , 204070-00-8
<b>Molecular Formula</b>	C <sub>11</sub> H <sub>22</sub> N <sub>4</sub> O <sub>4</sub> •HCl•H <sub>2</sub> O
<b>Molecular Weight</b>	328.8

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<b>Appearance</b>	White powder
<b>Solubility</b>	Clear solution (0.3 g in 2mL DMF and 1mL H <sub>2</sub> O)
<b>Water Content (Karl Fisher)</b>	6.21%
<b>Optical Rotation</b>	[α] <sub>D</sub> <sup>20</sup> = + 9.0 ° (C=1 in H <sub>2</sub> O)
<b>Infrared Spectrum</b>	Conforms to structure
<b>Analysis by Mass Spectra</b>	Conforms to structure
<b>Loss on Drying</b>	0.53% (50 °C, 2h)
<b><sup>1</sup>H NMR</b>	Conforms to structure
<b>Purity by HPLC</b>	98.37%
<b>Purity by TLC</b>	> 98%
<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