

# Chem-Impex International, Inc.

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## Certificate of Analysis

<b>Catalogue Number</b>	05890
<b>Lot Number</b>	000127-0513295
<b>Product</b>	<b>L-Aspartic acid <math>\beta</math>-4-nitroanilide</b> L-Asp(pNA)-OH•HCl
<b>CAS Number</b>	201732-79-8
<b>Molecular Formula</b>	C <sub>10</sub> H <sub>11</sub> N <sub>3</sub> O <sub>5</sub> •HCl
<b>Molecular Weight</b>	289.59

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<b>Appearance</b>	Slightly yellow product
<b>Appearance of Solution</b>	Clear, slightly yellowish solution (20 mg/mL in Acetic acid 80%)
<b>Melting Point</b>	169 °C
<b>Elemental Analysis (Found)</b>	C : 42.09%, H : 4.79%, N : 14.69% Calc. as 0.5 HCl (Cl- 6.3%)x0.6 H <sub>2</sub> O (3.8%)
<b>Water Content (Karl Fisher)</b>	4%
<b>TLC System</b>	n-Butanol:Acetic acid:Water 4:2:2 Ethylacetate:Pyridine:Acetic acid:Water 60:60:12:36 Chloroform:Methanol:Acetic acid 32% 5:3:1 Plate : silicagel 60 F <sub>254</sub> Detected by : UV, ninhydrin, chlorine-tolidine
<b>Related Substances</b>	p-Nitroanilide : < 0.1%
<b>Titration</b>	Chloride content : 6.2% (AgNO <sub>3</sub> )
<b>Purity by TLC</b>	> 99%
<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