## Chem-Impex International, Inc.

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## Certificate of Analysis

Catalogue Number 00237

**Lot Number** 001050-0219

Product D-Ornithine hydrochloride

D-Orn-OH•HCl

(R)-2,5-diaminopentanoic acid monohydrochloride

CAS Number 16682-12-5 Molecular Formula 16682-12-5 C<sub>5</sub>H<sub>12</sub>N<sub>2</sub>O<sub>2</sub>•HCl

**Molecular Weight** 168.6

**Solubility** Colorless & Clear (C = 5 in 6N HCl)

**Heavy Metals** < 10 ppm (as Pb)

Trace Metal Analysis Iron (Fe): < 10 ppm

**Arsenic**  $(As_2O_2)$  < 1 ppm

**Anion** Sulfate  $(SO_4^{2-})$ : < 0.03%

Cation Ammonium salts ( $NH_4^+$ ): < 0.02%

**Optical Rotation** [a]<sub>D</sub><sup>20</sup> = -23.8° (C=4 in 6N HCl)

Loss on Drying 0.08%

Other Amino Acids Not detected by TLC (the spotted amount 10 ug)

**Residue On Ignition** 0.01% (as sulfate)

Assay 100.4%
L-Enantiomer < 0.5%
Storage Store at RT

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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**