## Chem-Impex International, Inc.

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## **Certificate of Analysis**

Catalog Number 04430

Product Name H-Gln-NH<sub>2</sub>•HCl

L-Glutamine α-amide hydrochloride

**Lot Number** Gln20110308

**Molecular Formula** C<sub>5</sub>H<sub>11</sub>N<sub>3</sub>O<sub>2</sub>•HCl

Molecular Weight 181.7

**Appearance** Off-white powder

**Optical Rotation**  $\alpha^{20}_{D} = -27.9 \, ^{\circ} (C = 1\% \text{ in H}_{2}O)$ 

**Identification by** <sup>1</sup>**H NMR** Complies to structure (D<sub>2</sub>O)

**Identification by** <sup>13</sup>**C NMR** Complies to structure (D<sub>2</sub>O)

Purity by <sup>1</sup>H NMR > 98%

Storage Store at 0-5°C.

**Remarks** 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

Bala Kumar

**Quality Control Manager**