Chem-Impex International, Inc.

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Shipping and Correspondence:

935 Dillon Drive 825 Dillon Drive

Wood Dale, IL 60191 Wood Dale, IL 60191

Certificate of Analysis

Catalogue Number 05596

Lot Number 000424-230604-21139

Product Boc-L-pyroglutamic acid

Boc-L-Pyr-OH

Boc-(S)-2-pyrrolidinone-5-carboxylic acid

Manufacturing site:

 $\begin{array}{lll} \textbf{CAS Number} & 53100\text{-}44\text{-}0 \\ \textbf{Molecular Formula} & C_{10}H_{15}NO_5 \\ \textbf{Molecular Weight} & 229.24 \\ \end{array}$

Appearance White powder

Solubility Clear solution (0.3 g in 5 mL MeOH)

0.36%

Melting Point 117.3 - 118.5 °C

Water Content (Karl

Fisher)

Optical Rotation [a]_D²⁰ = -35.7 ° (C=1 in CHCl₃)

Infrared Spectrum

Analysis by Mass Spectra

Conforms to structure

Conforms to structure

Conforms to structure

0.85% (45 °C, 2h)

Conforms to structure

Purity by HPLC 99.96%

Storage Store at 0 - 8 °C

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