121 Stryker Lane, Bldg. 30, Suite 1 · Hillsborough, NJ 08844 · U.S.A. Phone: (908) 359-6778 • FAX: (908) 359-1179 website: www.indofinechemical.com e-mail: chemical@indofinechemical.com

Certificate of Analysis

Catalogue Number

04-863

Lot Number

000127-1068222

Product

Boc-L-proline 4-nitrophenyl ester

Boc-L-Pro-ONp

(S)-Boc-pyrrolidine-2-carboxylic acid 4-nitrophenyl ester

CAS Number

28310-65-8

Molecular Formula

 $C_{16}H_{20}N_2O_6$

Molecular Weight

336.3

Appearance

Pale beige powder

Solubility

Clear, slightly yellowish solution (50mg/mL in Acetone)

Melting Point

Elemental Analysis

(Found)

C = 57.0%; H = 6.1%; N = 8.3%

TLC System

Benzene/Dioxane/Acetic Acid (95:25:4) Methanol 80%

Chloroform/Methanol/Benzene/Water (8:8:8:1) Chloroform/Methanol/Acetic acid (90:8:2)

Plate: Silicagel 60 F254

Detected by: UV, ninhydrin, Chlorine-Tolidine

Optical Rotation

 $[a]_D^{24} = -53.0^{\circ} (C=1 \text{ in DMF})$

Purity by HPLC

> 99%

Storage

Store at 0-8 °C

Prepared by: Ramesh Mandadi

Ramesh Mandadi Director of Operations Reviewed and approved by:

Sujata Moton

S. Moion VP.