Chem-Impex International, Inc.

Tel: (630) 766-2112 Fax: (630) 766-2218

E-mail: sales@chemimpex.com Web site: www.chemimpex.com

Shipping and Correspondence:935 Dillon Drive
825 Dillon Drive

Wood Dale, IL 60191 Wood Dale, IL 60191

Certificate of Analysis

Catalogue Number 05489 Lot Number 123848

Product Boc-D-glutamic acid γ-tert-butyl ester-4 α-

nitrophenyl ester

Boc-D-Glu(OtBu)-ONp

CAS Number 200397-60-0 Molecular Formula C₂₀H₂₈N₂O₈

Molecular Weight 424.45

Solubility Clear and colorless solution (5% in dioxane)

Melting Point 63-70 °C

Elemental Analysis

(Found)

TLC System Benzene/Dioxane/Acetic Acid (95:25:4) R_f = 0.59

Chloroform/Ethyl Acetate (9:1) $R_f = 0.60$ Detected by: UV, ninhydrin, chlorine-tolidine

C = 56.05%; H = 5.35%; N = 6.43%; H2O = 0.9%

Optical Rotation [a]_D²⁴ = +34.7° (C=1% in DMF)

Purity by TLC > 99%

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