## **Chem-Impex International, Inc.**

Tel: (630) 766-2112 E-mail: sales@chemimpex.com Shipping and Correspondence: 935 Dillon Drive Wood Dale, IL 60191 Fax: (630) 766-2218 Web site: www.chemimpex.com Manufacturing site: 825 Dillon Drive Wood Dale, IL 60191

## Certificate of Analysis

Catalogue Number	02569
Lot Number	000424-230226-20404
Product	<b>Fmoc-4-chloro-D-phenylalanine</b> Fmoc-D-Phe(4-Cl)-OH
CAS Number	142994-19-2
Molecular Formula	$C_{24}H_{20}CINO_4$
 Molecular Weight	421.9
Appearance	White powder
Solubility	Clear solution 0.3 g in 2 mL DMF
Melting Point	173.5 - 174.5 °C
Elemental Analysis (Found)	C, H and N : < 5%
Water Content (Karl Fisher)	1.25%
<b>Optical Rotation</b>	$[a]_D^{20} = 32 \circ (C=1 \text{ in DMF})$
Infrared Spectrum	Conforms to structure
Analysis by Mass Spectra	Conforms to standard
Loss on Drying	0.44%
<sup>1</sup> H NMR	Conforms to structure
Chiral HPLC	99.86% (ee)
L-Enantiomer	0.14%
Purity by HPLC	99.72%
Storage	Store at 0 - 8 °C

## Certificate of Analysis

Catalog Number: 02569

Lot Number: 000424-230226-20404

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

litumer.

Bala Kumar Quality Control Manager