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

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## Certificate of Analysis

Catalogue Number	01335
Lot Number	000424-130923-30300
Product	$N^{\alpha}$ -Boc-L-asparagine 4-nitrophenyl ester
	Boc-L-Asn-ONp
CAS Number	4587-33-1
Molecular Formula	$C_{15}H_{19}N_3O_7$
Molecular Weight	353.3
Appearance	White powder
Solubility	Clear solution (0.3 gram in 2 mL DMF)
Melting Point	145.3-145.5 °C
Water Content (Karl Fisher)	0.1%
<b>Optical Rotation</b>	[a] <sub>D</sub> <sup>20</sup> = -37.8° (C=1 in DMF)
Infrared Spectrum	Conforms to structure
Analysis by Mass Spectra	Conforms to structure
Loss on Drying	0.05% (70 °C for 2 hours)
<sup>1</sup> H NMR	Conforms to structure
Purity by HPLC	98.44%
Storage	Store at 0-8°C

## Certificate of Analysis

Catalog Number: 01335

Lot Number: 000424-130923-30300

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

letumer.

Bala Kumar Quality Control Manager