

# Chem-Impex International, Inc.

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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

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## Certificate of Analysis

**Catalogue Number** 23174  
**Lot Number** 000424-140318-30410  
**Product** **Boc-D-aspartic acid- $\beta$ -tert-butyl ester**

Boc-D-Asp(OtBu)-OH

**CAS Number** 155542-33-9  
**Molecular Formula** C<sub>13</sub>H<sub>23</sub>NO<sub>6</sub>  
**Molecular Weight** 289.3

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**Appearance** White powder  
**Solubility** Clear solution (0.3 g in 2 mL MeOH)  
**Melting Point** 49.6-51.2 °C  
**Water Content (Karl Fisher)** 3.023%  
**Optical Rotation** [a]<sub>D</sub><sup>20</sup> = +22.5° (C=2 in DMF)  
**Infrared Spectrum** Conforms to structure  
**Analysis by Mass Spectra** Conforms to standard  
**<sup>1</sup>H NMR** Conforms to structure  
**Purity by HPLC** 99.78%  
**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**