## 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 03406

Product D-Norvaline Lot Number 000424-200625-22372

D-Nva-OH

CAS Number 2013-12-9
Molecular Formula C<sub>5</sub>H<sub>11</sub>NO<sub>2</sub>
Molecular Weight 117.1

**Appearance** White crystalline powder

**Optical Rotation** [a]<sub>D</sub><sup>20</sup> = -23.3 ° (C=2 in 6N HCl)

Infrared SpectrumConforms to structureAnalysis by Mass SpectraConforms to standardLoss on Drying0.28% (105 °C, 2h)

**Residue On Ignition** 0.05%

<sup>1</sup>**H NMR** Conforms to structure

**Assay by titration** 99.85% (Acid-Base titration)

L-Enantiomer 0.0242%Chiral Purity 99.97% (ee)Storage Store at RT

**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**