

# 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

|                          |   |
|--------------------------|---|
| <b>Catalogue Number</b>  | 33574   |
| <b>Product</b>           | <b>L-Isovaline monohydrate</b>                                      |
| <b>Lot Number</b>        | 000424-210330-12818<br>(S)-2-Amino-2-methylbutyric acid monohydrate |
| <b>CAS Number</b>        | 1266371-20-3  |
| <b>Molecular Formula</b> | C <sub>5</sub> H <sub>11</sub> NO <sub>2</sub> • H <sub>2</sub> O   |
| <b>Molecular Weight</b>  | 135.16  |

---

|                                 |  |
|---------------------------------|--|
| <b>Appearance</b>               | White solid  |
| <b>Optical Rotation</b>         | [α] <sub>D</sub> <sup>20</sup> = 10.1 ° (C=5 in water)                               |
| <b>Analysis by Mass Spectra</b> | Conforms to standard   |
| <b>Residual Solvents</b>        | Not identified   |
| <b>Related Substances</b>       | Not identified   |
| <b><sup>1</sup>H NMR</b>        | Conforms to structure  |
| <b>Assay by titration</b>       | 100.8% (HClO <sub>4</sub> )  |
| <b>Chiral HPLC</b>              | 100% (ee)  |
| <b>D-Enantiomer</b>             | Not detected   |
| <b>Purity by HPLC</b>           | 100%   |
| <b>Storage</b>                  | Store at 2 - 8 °C  |
| <b>Remarks</b>                  | See material safety data sheet for additional information<br>For laboratory use only |

The foregoing is a copy of the Certificate of Analysis as provided by our supplier



**Bala Kumar**  
**Quality Control Manager**