



# INDOFINE Chemical Company, Inc.

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## Certificate of Analysis

|                   |                                               |
|-------------------|-----------------------------------------------|
| Catalogue Number  | BIO-434                                       |
| Lot Number        | 8B002877119                                   |
| Product           | <b>L-Alanine</b>                              |
|                   | L-Ala-OH                                      |
|                   | (S)-2-Aminopropanoic acid                     |
| CAS Number        | 56-41-7                                       |
| Molecular Formula | C <sub>3</sub> H <sub>7</sub> NO <sub>2</sub> |
| Molecular Weight  | 89.09                                         |

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|                             |                                                                                           |
|-----------------------------|-------------------------------------------------------------------------------------------|
| Appearance                  | White crystals or crystalline powder                                                      |
| Heavy Metals                | < 15 ppm (as Pb)                                                                          |
| Trace Metal Analysis        | Iron (Fe): < 30 ppm                                                                       |
| Anion                       | Chloride (Cl <sup>-</sup> ): < 0.05%<br>Sulfate (SO <sub>4</sub> <sup>2-</sup> ): < 0.03% |
| pH                          | 6.2                                                                                       |
| Optical Rotation            | +14.3°                                                                                    |
| Infrared Spectrum           | Conforms to structure                                                                     |
| Loss on Drying              | 0.12%                                                                                     |
| Organic Volatile Impurities | Meets the requirements                                                                    |
| Related Substances          | Individual impurity: < 0.5%; Total impurities: < 2.0%                                     |
| Residue On Ignition         | 0.09%                                                                                     |
| Assay by titration          | 99.2% (anhydrous basis)                                                                   |
| Grade                       | USP                                                                                       |
| Storage                     | Store at RT                                                                               |

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