

# *Chem-Impex International, Inc.*

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## *Certificate of Analysis*

|                         |                   |
|-------------------------|-------------------|
| <b>Catalogue Number</b> | 05838             |
| <b>Lot Number</b>       | 000127-1058696    |
| <b>Product</b>          | <b>Ala-Ser-OH</b> |

L-Alanyl-L-serine

|                          |  |
|--------------------------|--|
| <b>CAS Number</b>        | 3303-41-1  |
| <b>Molecular Formula</b> | C <sub>6</sub> H <sub>12</sub> N <sub>2</sub> O <sub>4</sub> |

|                         |        |
|-------------------------|--------|
| <b>Molecular Weight</b> | 176.17 |
|-------------------------|--------|

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|                                    |   |
|------------------------------------|---|
| <b>Appearance</b>                  | Off-white to light redish powder  |
| <b>Solubility</b>                  | Clear colorless solution (50 mg/mL in AcOH 80%)   |
| <b>Elemental Analysis (Found)</b>  | C = 40.35%, H = 6.97%, N = 15.88%<br>Calcd. as 0.03 Water (0.31%)   |
| <b>Water Content (Karl Fisher)</b> | 0.3%  |
| <b>TLC System</b>                  | Chloroform/Methanol/Acetic acid/Water (60:45:14:6)<br>n-Butanol/Acetic acid/Water (4:2:2)<br>n-Butanol/Acetic acid/Water/Pyridine (30:6:24:20)<br>Plate: Silicagel 60 F <sub>254</sub><br>Detected by: UV, ninhydrin, TMB |
| <b>Optical Rotation</b>            | [α] <sub>D</sub> <sup>24</sup> = +10.9° (C=2 in H <sub>2</sub> O)   |
| <b>Purity by TLC</b>               | > 99%   |
| <b>Storage</b>                     | Store at 0-8 °C   |

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**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**

A handwritten signature in black ink, appearing to read 'Bala Kumar', with a stylized flourish at the end.

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