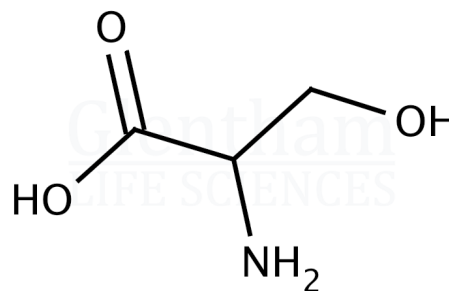


## Certificate of Analysis

|                   |   |
|-------------------|---|
| Product Name      | DL-Serine                                     |
| Glentham Code     | GM9506  |
| CAS Number        | 302-84-1                                      |
| EINECS            | 206-130-6                                     |
| MDL Number        | MFCD00064223                                  |
| PubChem SID       | 310272455                                     |
| Batch Number      | 864MTP  |
| Molecular Weight  | 105.09  |
| Molecular Formula | C <sub>3</sub> H <sub>7</sub> NO <sub>3</sub> |
| Storage Temp.     | +20°C   |



| Property                  | Specification                            | Batch 864MTP                    |
|---------------------------|--|---------------------------------|
| Physical Description      | White to almost white crystalline powder | Almost white crystalline powder |
| Identification (IR)       | To conform to standard                   | Conforms                        |
| Solubility (10% in water) | Clear, colourless solution               | Clear, colourless solution      |
| Specific Optical Rotation | -0.5 - +0.5 ° (c=2, water)               | +0.1°                           |
| Chloride (Cl)             | ≤ 0.05ppm                                | Conforms                        |
| Iron (Fe)                 | ≤ 10ppm                                  | Conforms                        |
| Heavy Metals              | ≤ 10ppm                                  | Conforms                        |
| Residue on Ignition       | ≤ 0.1%                                   | Conforms                        |
| Loss on Drying            | ≤ 0.5%                                   | 0.4%                            |
| Assay                     | 98.5 - 101.0 % (dried basis)             | 99.5%                           |

|                       |            |
|-----------------------|------------|
| Specification Version | v1.1       |
| Manufacture Date      | 2021-12-06 |
| Re-Test Date          | 2030-01-04 |

Glentham Life Sciences confirm that the above referenced product conformed to the information displayed in this document on the quality release date. Please check [www.glentham.com](http://www.glentham.com) or contact us using the details above for the current version of this document.

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