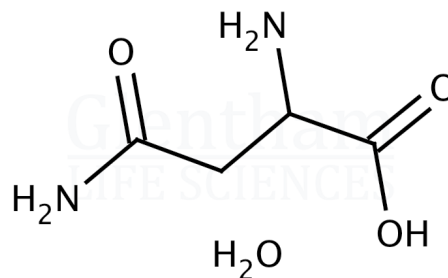


## Certificate of Analysis

|                   |                           |
|-------------------|---------------------------|
| Product Name      | DL-Asparagine monohydrate |
| Glentham Code     | GM5023                    |
| CAS Number        | 3130-87-8                 |
| EINECS            | 221-521-1                 |
| MDL Number        | MFCD00151039              |
| PubChem SID       | 310270847                 |
| Batch Number      | 813ENG                    |
| Molecular Weight  | 150.14                    |
| Molecular Formula | $C_4H_8N_2O_3 \cdot H_2O$ |
| Storage Temp.     | +20°C                     |



| Property                                        | Specification                         | Batch 813ENG                 |
|-------------------------------------------------|---------------------------------------|------------------------------|
| Physical Description                            | White to off-white crystalline powder | Off-white crystalline powder |
| Identification (IR)                             | To conform to standard                | Conforms                     |
| Specific Optical Rotation ( $[\alpha]_{20/D}$ ) | -0.5 - +0.5 ° (c=4, water)            | +0.3°                        |
| Loss on Drying                                  | 10.5 - 13.5 % (105°C, 1h)             | 12.1%                        |
| Residue on Ignition                             | ≤ 0.1%                                | 0.06%                        |
| Assay                                           | 99.0 - 101.0 %                        | 99.3%                        |

|                       |            |
|-----------------------|------------|
| Specification Version | v1.0       |
| Manufacture Date      | 2022-03-11 |
| Re-Test Date          | 2029-04-08 |

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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