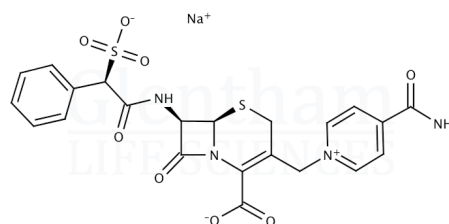


## Certificate of Analysis

|                |                                |
|----------------|--------------------------------|
| Product Name   | Cefsulodin sodium salt hydrate |
| Glentham Code  | GA1461                         |
| CAS Number     | 52152-93-9                     |
| EINECS         | 257-692-4                      |
| MDL Number     | MFCD07793338                   |
| Additional CAS | 41444-66-0 (anhy.)             |
| Additional CAS | 62587-73-9 (acid)              |
| PubChem SID    | 310269509                      |
| Batch Number   | 1010XK                         |

|                   |                                       |
|-------------------|---------------------------------------|
| Molecular Weight  | 554.53 (anhydrous)                    |
| Molecular Formula | $C_{22}H_{19}N_4NaO_8S_2 \cdot xH_2O$ |
| Storage Temp.     | +4°C                                  |



| Property                  | Specification                | Batch 1010XK        |
|---------------------------|------------------------------|---------------------|
| Physical Description      | White to light yellow powder | Light yellow powder |
| Assay                     | ≥ 86.0%                      | 90.1%               |
| pH                        | 3.3 - 4.8                    | 3.7                 |
| Specific Optical Rotation | +16.5 - +20.0 °              | +17.6°              |
| Water (KF)                | ≤ 5.0%                       | 3.8%                |
| Isonicotinic acid amide   | ≤ 1.0%                       | 0.2%                |
| Total Other Impurities    | ≤ 1.5%                       | 0.8%                |

|                       |            |
|-----------------------|------------|
| Specification Version | v1.0       |
| Manufacture Date      | 2025-02-18 |
| Re-Test Date          | 2031-02-13 |

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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