

**676161** **Lot: 812413**  
**Ceftiofur sodium**1. General Information

Formula	C <sub>19</sub> H <sub>16</sub> N <sub>5</sub> NaO <sub>7</sub> S <sub>3</sub>	Expiry Date	01 Sep 2027
<b>Mol. Weight</b>	<b>545.54 g/mol</b>	Store at	4°C (in the dark)
CAS-No.	104010-37-9		

2. Batch Analysis

Identity	confirmed by LC-MS		
<b>Overall Purity</b>	<b>95.65 % (g/g)</b>	<b>Expanded Uncertainty</b>	<b>1.50 % (g/g)</b>
Assay Purity (HPLC)	95.65 % (g/g)	Uncertainty	0.75 % (g/g)

Certified on 16 Aug 2022



by Heike Uhlig

The overall purity is calculated by:  $\text{Purity(\%)} = \frac{\text{Assay purity} \times (100 - \text{water content} - \text{impurities})}{100}$

The reported uncertainty U is an expanded uncertainty according to EURACHEM / CITAC guide CG4 – Quantifying Uncertainty in Analytical Measurement. The Uncertainty is based on the combined uncertainties, including uncertainties of characterization and stability testing. The expiry date is based on the current knowledge and holds only for proper storage conditions in the originally closed flask. If the substance is proven to be unstable under the given storage conditions, you will be contacted immediately. The warranty of this product is limited to the purchasing price of this product and to the first point of use.

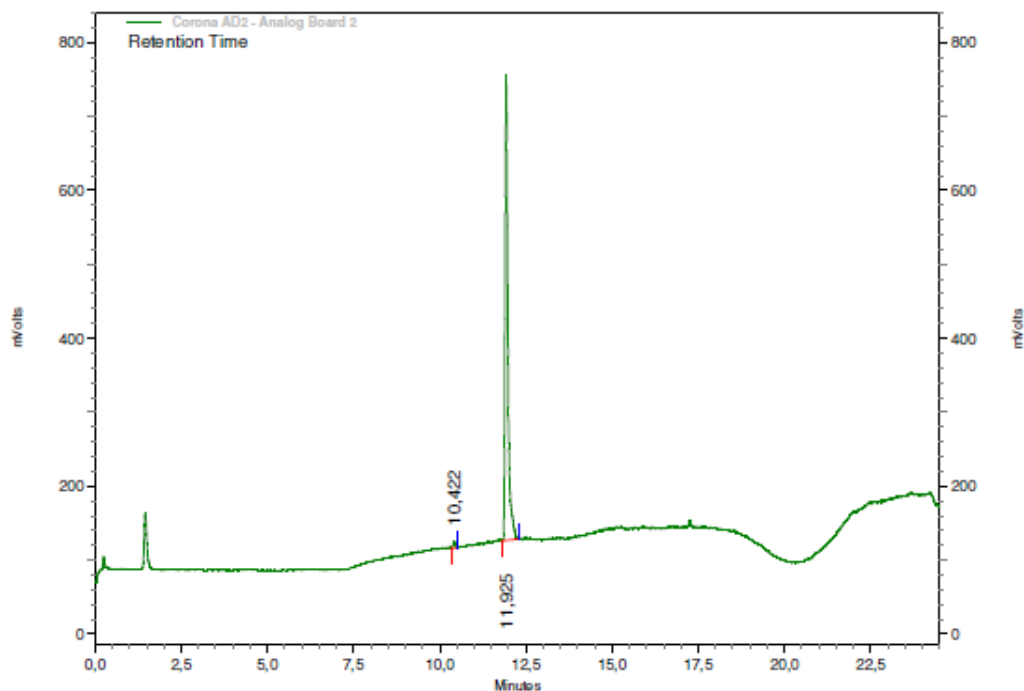
Our standards are for laboratory use only and can be used as reference material for calibration of chromatographic systems or related analytical techniques. For handling instructions see the MSDS. A minimum sample of 2 mg is recommended. Deploying less material will increase the uncertainty. The material in the vial can be used multiple times, but it is strongly recommended, that all external negative influences to the material are considered and ruled out (e.g. high temperatures, UV-radiation, moisture, oxygen). It is strongly recommended to open the vial at room temperature only and handle the material under inert gas if necessary. The integrity of the purity cannot be guaranteed, if the substance is handled under unfavorable conditions.

The balances used are calibrated with weights traceable to the national standards (DKD).

The HPC Standards GmbH, accredited by DAkkS as indicated by the accreditation number D-RM-20844-01-00, has shown competence based on ISO 17034:2017 for production of certified reference materials.

**HPLC-Method**

Article 676161  
Lot-No. 812413  
Column L=100mm, ID=4.6mm; Kinetex C18, 100 Å, 2.6µm  
Eluent A Acetonitrile+ 0.1 % Formic acid  
Eluent B Water +0.1 % Formic acid  
Gradient  
time %A %B  
0min 0 100  
15min 95 5  
20min 95 5  
Flow 0.7 ml min<sup>-1</sup>  
Detector CAD  
Injection-Volume 0.5 µl  
Sample 7.0 mg ml<sup>-1</sup> (Acetonitrile)



Corona AD2 -  
Analog Board 2  
Results

Retention Time	Height	Area	Area Percent
10,422	8421	40240	1,095
11,925	629278	3634483	98,905
Totals		637699	3674723
			100,000

Exemplary chromatogram of given method.

Version	Article	Lot	Reason for Change	Date
1	676161	812413	Initial Version	16 Aug 2022