

676065 **Lot: 813509****Cefoperazone**1. General Information

Formula	C ₂₅ H ₂₇ N ₉ O ₈ S ₂	Expiry Date	01 Oct 2027
Mol. Weight	645.67 g/mol	Store at	4°C (in the dark)
CAS-No.	62893-19-0		

2. Batch Analysis

Identity	confirmed by LC-MS		
Overall Purity	97.99 % (g/g)	Expanded Uncertainty	0.60 % (g/g)
Assay Purity (HPLC)	97.99 % (g/g)	Uncertainty	0.30 % (g/g)

Certified on 13 Oct 2022



by Jacqueline Seidel

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.

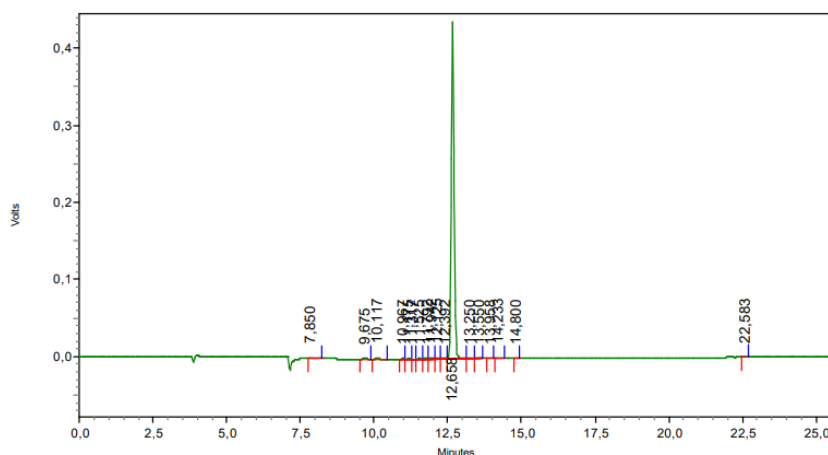
Our standards are for laboratory use only and can be used as reference material for calibration of chromatographic systems or related analytical techniques. For handling instructions see the MSDS. A minimum sample of 2 mg is recommended. Deploying less material will increase the uncertainty by a factor 2 for half of sample and 4 for a quarter of sample. 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 676065
Lot-No. 813509
Column L=250mm, ID=4.6mm; Luna-Omega C18, 100A, 5µm
Eluent A Acetonitrile
Eluent B 0.1 % Phosphoric acid (Water)
Gradient
time %A %B
0min 0 100
22.5min 90 10
25min 90 10
Flow 1.0 ml min⁻¹
Detector UV-220nm
Injection-Volume 5 µl
Sample 0.3 mg ml⁻¹ (Acetonitrile)



Detector A - 1 (220nm)			
Retention Time	Height	Area	Area Percent
7.850	688	5903	0.22
9.675	522	4978	0.19
10.117	1001	8727	0.33
10.967	538	2686	0.10
11.175	290	2010	0.08
11.317	132	1077	0.04
11.525	379	2367	0.09
11.792	314	2498	0.09
11.942	727	5565	0.21
12.125	796	4772	0.18
12.392	309	3169	0.12
12.658	436860	2582530	97.81
13.250	377	3508	0.13
13.550	228	3117	0.12
13.958	149	1308	0.05
14.233	596	4743	0.18
14.800	100	562	0.02
22.583	133	757	0.03
Totals	444139	2640277	100.00

Exemplary chromatogram of given method.

Version	Article	Lot	Reason for Change	Date
1	676065	813509	Initial Version	13 Oct 2022