

# PRODUCT INFORMATION



## Cefmetazole

Item No. 30269

CAS Registry No.: 56796-20-4

Formal Name: (6R,7S)-7-[[2-[(cyanomethyl)thio]acetyl]amino]-7-methoxy-3-[[[(1-methyl-1H-tetrazol-5-yl)thio]methyl]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid

MF:  $C_{15}H_{17}N_7O_5S_3$

FW: 471.5

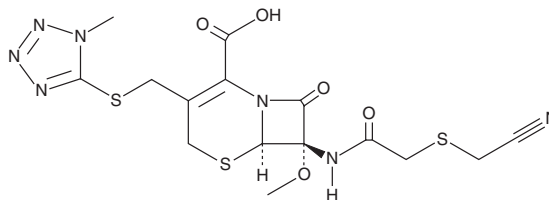
Purity:  $\geq 98\%$

UV/Vis.:  $\lambda_{max}$ : 277 nm

Supplied as: A solid

Storage:  $-20^{\circ}C$

Stability:  $\geq 4$  years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Cefmetazole is supplied as a solid. A stock solution may be made by dissolving the cefmetazole in the solvent of choice, which should be purged with an inert gas. Cefmetazole is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of cefmetazole in these solvents is approximately 20 mg/ml.

Cefmetazole is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, cefmetazole should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Cefmetazole has a solubility of approximately 0.2 mg/ml in a 1:4 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Cefmetazole is a cephamycin antibiotic.<sup>1</sup> It is active against *E. coli*, *P. mirabilis*, *H. influenzae*, *N. gonorrhoeae*, *S. pneumoniae*, and *S. pyogenes* ( $MIC_{50S} = 0.25-2 \mu g/ml$ ). Cefmetazole (20 and 40 mg/kg per day) decreases the lesion size and the number of ulcerative lesions in a rabbit model of active syphilis.<sup>2</sup>

### References

1. Jones, R.N., Barry, A.L., Fuchs, P.C., *et al.* Antimicrobial activity of cefmetazole (CS-1170) and recommendations of susceptibility testing by disk diffusion, dilution, and anaerobic methods. *J. Clin. Microbiol.* **24**(6), 1055-1059 (1986).
2. Baker-Zander, S.A. and Lukehart, S.A. Efficacy of cefmetazole in the treatment of active syphilis in the rabbit model. *Antimicrob. Agents Chemother.* **33**(9), 1465-1469 (1989).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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