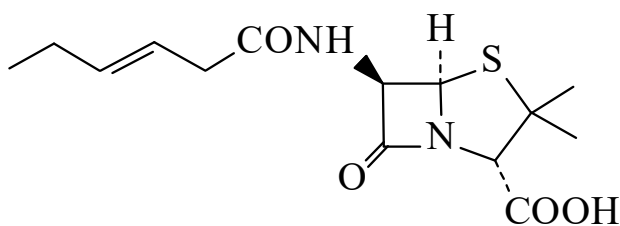




>>Entry Name: Penicillin F

Synonym(s): 2-Pentenylpenicillin. Penicillin I



CAS Registry Number: 118-53-6

Molecular Formula: C₁₄H₂₀N₂O₄S

Molecular Weight: 312.389

Accurate Mass: 312.114378

Percentage Composition: C 53.83%; H 6.45%; N 8.97%; O 20.49%; S 10.26%

Biological Source: Prod. by *Penicillium notatum* and *Penicillium chrysogenum*

Use/Importance: Of no coml. importance

pKa Value: pK_a 2.8 (5°, H₂O)

Hazard & Toxicity: LD₅₀ (mus, ivn) 2000 mg/kg

>>Derivative: Na salt

CAS Registry Number: 525-86-0

Melting Point: Mp 204-205 dec.°

Optical Rotation: [α]_D²⁵ +316 (c, 0.88 in H₂O)

Solubility: Sol. H₂O

>>Derivative: Dihydro

Synonym(s): Penstylpenicillin. Amylpenicillin. Dihydropenicillin F. Flavacidin. Gigantic acid‡. Flavacin‡

CAS Registry Number: 4493-18-9

Molecular Formula: C₁₄H₂₂N₂O₄S

Molecular Weight: 314.405

Accurate Mass: 314.130028

Percentage Composition: C 53.48%; H 7.05%; N 8.91%; O 20.36%; S 10.20%

Biological Source: From *Penicillium* spp. and *Aspergillus* spp.

Use/Importance: No coml. importance

Optical Rotation: [α]_D¹⁹ +440 (H₂O)

Hazard & Toxicity: LD₅₀ (mus, ivn) 2000 mg/kg

References:

Lemke, P. *et al.*, *Cephalosporins Penicillins: Chem. Biol.*, (ed. Flynn, E.H.), Academic Press, 1972, 370, (rev)

Martinez-Blanco, H. *et al.*, *J. Biol. Chem.*, 1992, **267**, 5474, (synth)