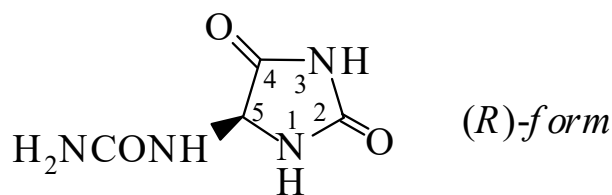




>>Entry Name: Allantoin, BAN, USAN

Synonym(s): (2,5-Dioxo-4-imidazolidinyl)urea, 9CI. 5-Ureido-2,4-imidazolidinedione. Glyoxylic diureide. 5-Ureidohydantoin. Dermalex. Cordianin. Actinac. Alphosyl



CAS Registry Number: 97-59-6

Related CAS Registry Numbers(s): 61504-48-1

Molecular Formula: C₄H₆N₄O₃

Molecular Weight: 158.116

Accurate Mass: 158.043991

Percentage Composition: C 30.39%; H 3.82%; N 35.43%; O 30.36%

Biological Source: Occurs in allantoinic fluid. A product of purine metabolism. V. widely distributed in biol. systems, isol. from numerous plants. Formed in animals, except primates, by enzymic oxidn. of Uric acid [JZR60-K](#)

Use/Importance: Antiinflammatory, antipsoriatic (disputed), topical vulnerary agent. Promotes wound healing

Calculated Log P Data: Log P -1.54 (calc)

Other Data: Component of numerous preps. Actinac, Alphosyl, Dermalex

Aldrich: A2839-2

Fluka: 5670

Rare Chemicals Library: S41862-5

Sigma: A7878

>>Variant: (R)-form

CAS Registry Number: 7303-80-2

Molecular Formula: C₄H₆N₄O₃

Molecular Weight: 158.116

Accurate Mass: 158.043991

Percentage Composition: C 30.39%; H 3.82%; N 35.43%; O 30.36%

Melting Point: Mp 226-229 dec.°

Optical Rotation: $[\alpha]_D^{30} -92$ (c, 0.0075 in H₂O)

Solubility: Mod. sol. H₂O, more sol. org. solvs than (±)-form

pKa Value: pK_a 8.5 (25°)

>>Variant: (S)-form

Molecular Formula: C₄H₆N₄O₃

Molecular Weight: 158.116

Accurate Mass: 158.043991

Percentage Composition: C 30.39%; H 3.82%; N 35.43%; O 30.36%

Source/Synthesis: Isol. from leaves of *Platanus orientalis*

Physical Description: Needles (H₂O)

Optical Rotation: $[\alpha]_D^{29} +92$ (H₂O)

>>Variant: (±)-form

CAS Registry Number: 5377-33-3

Molecular Formula: C₄H₆N₄O₃

Molecular Weight: 158.116

Accurate Mass: 158.043991

Percentage Composition: C 30.39%; H 3.82%; N 35.43%; O 30.36%

Physical Description: Monoclinic prisms (H₂O)

Melting Point: Mp 238-240 dec.°

Solubility: V. spar. sol. H₂O; spar. sol. org. solvs.