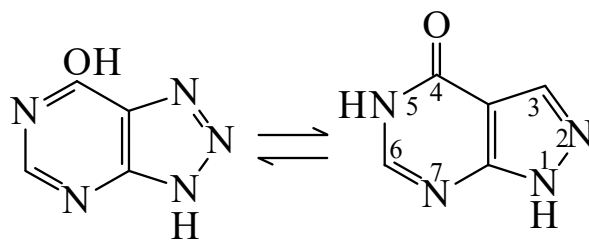




>>Entry Name: **1*H*-Pyrazolo[3,4-*d*]pyrimidin-4-ol**

Synonym(s): 4-Hydroxypyrazolo[3,4-*d*]pyrimidine. 1,5-Dihydro-4*H*-pyrazolo[3,4-*d*]pyrimidin-4-one, 9Cl. 1*H*-Pyrazolo[3,4-*d*]pyrimidin-4(5*H*)-one. **Allopurinol**, BAN, INN, JAN, USAN. Aloral. Aluline. Caplenal. Cosuric. Lederpur. Lopurin. Zyloprim. Zyloric. BW 56 158. NSC 1390. Many other names



CAS Registry Number: 315-30-0

Related CAS Registry Numbers(s): 17795-21-0

Molecular Formula: C₅H₄N₄O

Molecular Weight: 136.113

Accurate Mass: 136.038511

Percentage Composition: C 44.12%; H 2.96%; N 41.16%; O 11.75%

Use/Importance: Xanthine oxidase inhibitor. Used in treatment of chronic gout and related diseases. Inhibitor of ATP synthesis from guanine and of RNA biosynthesis. Also shows antithrombotic and antiparasitic activities

Physical Description: Cryst. (H₂O)

Melting Point: Mp 383-384°

Other Data: Component of numerous preparations

Hazard & Toxicity: Human systemic effects (e.g. skin rashes) when used therapeutically. Exp. teratogen. LD₅₀ (rat, ipr) 900 mg/kg

Aldrich: H5660-6

Sigma: A8003

>>Derivative: 1-Me

Molecular Formula: C₆H₆N₄O

Molecular Weight: 150.14

Accurate Mass: 150.054161

Percentage Composition: C 48.00%; H 4.03%; N 37.32%; O 10.66%

Physical Description: Needles (H₂O)

Melting Point: Mp 300°

>>Derivative: 1,5-Di-Me

Molecular Formula: C₇H₈N₄O

Molecular Weight: 164.166

Accurate Mass: 164.069811

Percentage Composition: C 51.21%; H 4.91%; N 34.13%; O 9.75%

Physical Description: Needles (MeOH)

Melting Point: Mp 193-195°

>>Derivative: 1-β-D-Ribofuranosyl

Synonym(s): Allopurinol riboside

CAS Registry Number: 16220-07-8

Molecular Formula: C₁₀H₁₂N₄O₅

Molecular Weight: 268.229

Accurate Mass: 268.080771

Percentage Composition: C 44.78%; H 4.51%; N 20.89%; O 29.82%

Biological Use/Importance: Exhibits antiparasitic and antiviral activity

Physical Description: Cryst. (MeOH)

Melting Point: Mp 205-206° (172-174°)

Optical Rotation: [α]_D²⁵ -70.2 (c, 0.53 in MeOH)

References: