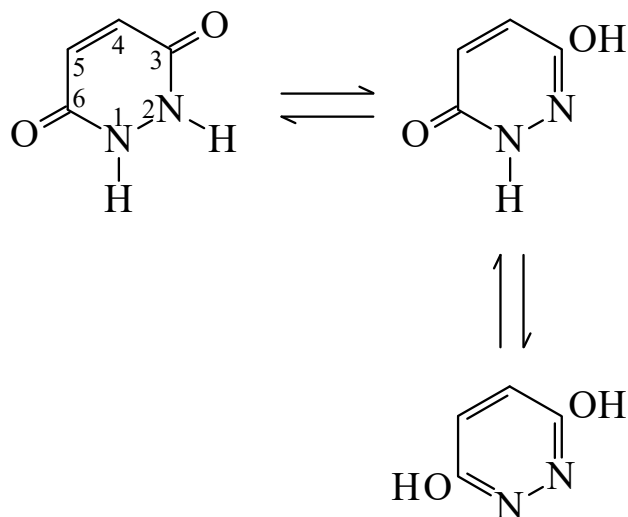




>>Entry Name: 1,2-Dihydro-3,6-pyridazinedione, 9CI

Synonym(s): 3-Hydroxy-6(1*H*)-pyridazinone. 3,6-Pyridazinediol. 3,6-Dihydroxypyridazine. Maleic hydrazide, BSI, ISO, JMAF. Antyrost. Antergon. Antyrost. MH



CAS Registry Number: 123-33-1

Related CAS Registry Numbers(s): 28330-26-9 51542-52-0

Molecular Formula: C₄H₄N₂O₂

Molecular Weight: 112.088

Accurate Mass: 112.027278

Percentage Composition: C 42.86%; H 3.60%; N 24.99%; O 28.55%

General Statement: Monooxo form predominates for parent compd. in gas and condensed phases. Dioxo-form also obs. in soln.; dihydroxy form is essentially absent

Source/Synthesis: Manuf. by reaction of maleic anhydride and hydrazine

Use/Importance: Plant growth inhibitor and herbicide. Used for photometric detn. of Fe(*III*) (λ_{max} 480 nm). Can function as a pyrimidine analogue or as a purine analogue in nucleoside base pairing

Physical Description: Cryst. (H₂O)

Melting Point: Mp 260 dec.°. Mp 300°

pKa Value: p*K*_{a1} -2.2; p*K*_{a2} 5.71; p*K*_{a3} 13 (20°)

Other Data: Forms water-sol. alkali metal and amine salts. Na and K salts used as plant growth regulators

Hazard & Toxicity: LD₅₀ (rat, orl) 3800 mg/kg. Irritant and skin sensitizer

Aldrich: D11980-6

Fluka: 63270

Sigma: M0500

>>Derivative: 1-Me

CAS Registry Number: 5436-01-1

Molecular Formula: C₅H₆N₂O₂

Molecular Weight: 126.115

Accurate Mass: 126.042928

Percentage Composition: C 47.62%; H 4.80%; N 22.21%; O 25.37%

Physical Description: Cryst. (EtOH)

Melting Point: Mp 215-216° (210-211°)

>>Derivative: 1-Et

CAS Registry Number: 31414-00-3

Molecular Formula: C₆H₈N₂O₂

Molecular Weight: 140.141

Accurate Mass: 140.058578

Percentage Composition: C 51.42%; H 5.75%; N 19.99%; O 22.83%

Physical Description: Cryst. (EtOH)

Melting Point: Mp 143.5-145°