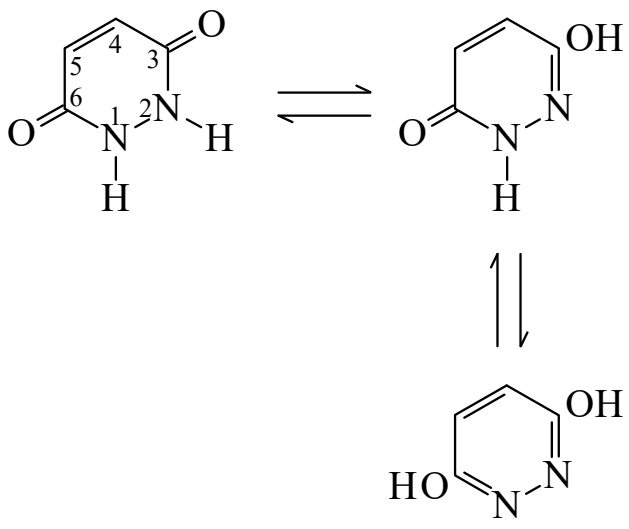
>>**Entry Name: 1,2-Dihydro-3,6-pyridazinedione,** 9CI

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: $C_4H_4N_2O_2$
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. (H_2O)
Melting Point: Mp 260 dec.°. Mp 300°
pKa Value: pK_{a1} –2.2; pK_{a2} 5.71; pK_{a3} 13 (20°)
Other Data: Forms water-sol. alkali metal and amine salts. Na and K salts used as plant growth regulators
Hazard & Toxicity: LD_{50} (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: $C_5H_6N_2O_2$
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: $C_6H_8N_2O_2$
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°