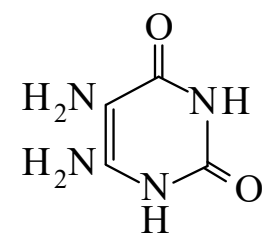




>>Entry Name: 4,5-Diamino-2,6-dihydroxypyrimidine

Synonym(s): 5,6-Diamino-2,4(1*H*,3*H*)-pyrimidinedione, 9Cl. 5,6-Diaminouracil



CAS Registry Number: 3240-72-0

Related CAS Registry Numbers(s): 32014-70-3 50787-05-8 50996-16-2

Molecular Formula: C₄H₆N₄O₂

Molecular Weight: 142.117

Accurate Mass: 142.049076

Percentage Composition: C 33.81%; H 4.26%; N 39.42%; O 22.52%

Biological Source: Prod. by a riboflavin-free mutant of *Aspergillus nidulans*

Rare Chemicals Library: S50438-6

>>Derivative: Hydrochloride (1:2)

Physical Description: Cryst.

Melting Point: Mp 300-305°

>>Derivative: 1,3-Di-Me

CAS Registry Number: 5440-00-6

Molecular Formula: C₆H₁₀N₄O₂

Molecular Weight: 170.171

Accurate Mass: 170.080376

Percentage Composition: C 42.35%; H 5.92%; N 32.92%; O 18.80%

Use/Importance: Used as 0.1*M* aq. soln. for photometric detn. of Co

Physical Description: Long needles (H₂O). Hydrol on standing; turns yellow

Melting Point: Mp 209°. Mp 275 dec.°

Aldrich: D1590-1

Fluka: 32910

Sigma: D2897

>>Derivative: 1-Ph

Molecular Formula: C₁₀H₁₀N₄O₂

Molecular Weight: 218.215

Accurate Mass: 218.080376

Percentage Composition: C 55.04%; H 4.62%; N 25.68%; O 14.66%

Physical Description: Yellow-brownish cryst. (Py aq.)

Melting Point: Mp 232-233°

References:

Aldrich Library of FT-IR Spectra, 1st edn., 1985, **1**, 812D, (*ir*)

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Sadique, J. *et al.*, *Naturwissenschaften*, 1966, **53**, 282, (*isol*)

Ruzi}cka, E. *et al.*, *Mikrochim. Acta*, 1968, 938, (*detn*, Co)

Khmelnitskii, R.A. *et al.*, *CA*, 1974, **81**, 62685h, (*ms*, *struct*)