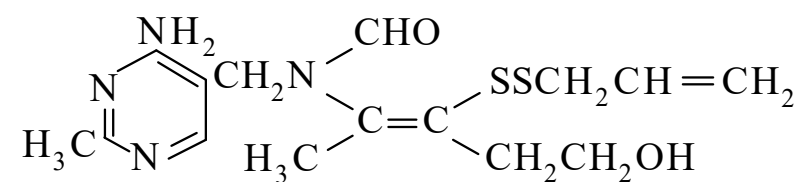




>>Entry Name: Allithiamine

Synonym(s): *N*-[(4-Amino-2-methyl-5-pyrimidinyl)methyl]-*N*-[4-hydroxy-1-methyl-2-(2-propenyldithio)-1-butenyl]formamide, 9CI



CAS Registry Number: 554-44-9

Molecular Formula: C₁₅H₂₂N₄O₂S₂

Molecular Weight: 354.496

Accurate Mass: 354.118416

Percentage Composition: C 50.82%; H 6.26%; N 15.80%; O 9.03%; S 18.09%

Biological Source: Obt. from garlic (*Allium sativum*)

Use/Importance: Imparts meaty flavour to foods

Biological Use/Importance: Has vitamin B₁ activity. Investigated as a dietary supplement to enhance muscle performance in sports. Suggested as a treatment for Thiamine deficiency

Physical Description: Cryst. (C₆H₆)

Melting Point: Mp 132-133 dec.°

References:

Matsukawa, T. *et al.*, *Science (Washington, D.C.)*, 1953, **118**, 325, (*isol, struct*)

Matsukawa, T. *et al.*, *CA*, 1955, **49**, 7572g, (*synth*)

Baker, H. *et al.*, *J. Nutr. Sci. Vitaminol.*, Suppl., 1976, **22**, 63-68, (*pharmacol*)

Doyle, M.R. *et al.*, *Int. J. Sport Nutr.*, 1997, **7**, 39-47, (*use*)