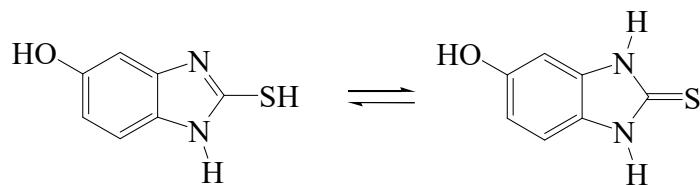




>>Entry Name: 5(6)-Hydroxy-2-mercaptobenzimidazole

Synonym(s): 1,3-Dihydro-5-hydroxy-2*H*-benzimidazole-2-thione, 9CI



CAS Registry Number: 92806-98-9

Molecular Formula: C₇H₆N₂OS

Molecular Weight: 166.203

Accurate Mass: 166.020083

Percentage Composition: C 50.59%; H 3.64%; N 16.85%; O 9.63%; S 19.29%

Physical Description: Rose-coloured prisms (Me₂CO/hexane)

Melting Point: Mp 287-290°

>>Derivative: Me ether

Synonym(s): 5-Methoxy-2-mercaptobenzimidazole

CAS Registry Number: 37052-78-1

Molecular Formula: C₈H₈N₂OS

Molecular Weight: 180.23

Accurate Mass: 180.035733

Percentage Composition: C 53.31%; H 4.47%; N 15.54%; O 8.88%; S 17.79%

Physical Description: Brown powder (EtOH)

Melting Point: Mp 263-264°

>>Derivative: Me ether, *N*¹-benzyl

Synonym(s): 1-Benzyl-5-methoxy-1,3-dihydro-2*H*-benzimidazole-2-thione, 9CI

CAS Registry Number: 30912-05-1

Molecular Formula: C₁₅H₁₄N₂OS

Molecular Weight: 270.354

Accurate Mass: 270.082683

Percentage Composition: C 66.64%; H 5.22%; N 10.36%; O 5.92%; S 11.86%

Use/Importance: Used as a 3 mM soln. in EtOH for photometric detn. of Te(*IV*) (λ_{max} 440 nm, ϵ 29500)

Physical Description: Cryst. (EtOH aq.)

Solubility: Sol. EtOH; mod. sol. H₂O

References:

Melchekova, Z.E. *et al.*, *Zavod. Lab.*, 1976, **42**, 257, (*deriv, detn, Te*)

U.S. Pat., 1989, 4 873 346; *CA*, **112**, 178982r, (*synth, Me ether, ir, uv, ms*)