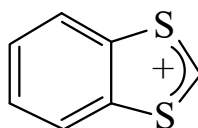




>>Entry Name: 1,3-Benzodithiolium(1+), 9CI



CAS Registry Number: 274-31-7

Molecular Formula: $C_7H_5S_2^{(+)}$

Molecular Weight: 153.248

Accurate Mass: 152.983265

Percentage Composition: C 54.86%; H 3.29%; S 41.85%

>>Derivative: Bromide

CAS Registry Number: 62432-95-5

Physical Description: Cryst.

Melting Point: Mp 169-170 dec.°

>>Derivative: Iodide

Physical Description: Orange cryst.

Melting Point: Mp 101-103 dec.°

>>Derivative: Perchlorate

CAS Registry Number: 32283-21-9

Molecular Formula: $C_7H_5ClO_4S_2$

Molecular Weight: 252.699

Accurate Mass: 251.931777

Percentage Composition: C 33.27%; H 1.99%; Cl 14.03%; O 25.33%; S 25.38%

Physical Description: Cryst.

Hazard & Toxicity: Explodes at 185°

>>Derivative: Tetrafluoroborate

CAS Registry Number: 57842-27-0

Molecular Formula: $C_7H_5BF_4S_2$

Molecular Weight: 240.053

Accurate Mass: 239.986182

Percentage Composition: C 35.02%; H 2.10%; B 4.50%; F 31.66%; S 26.72%

Use/Importance: Reagent for protection of primary and secondary hydroxyl group, useful for nucleosides

Physical Description: Cryst. (AcOH/MeCN/Et₂O)

Melting Point: Mp 154-155°

Other Data: The Aldrich catalogue refers to this compd. as 1,3-benzodithiol-2-ylum tetrafluoroborate

References:

- Nakayama, J. *et al.*, *Bull. Chem. Soc. Jpn.*, 1976, **49**, 3567, (*synth*)
Degani, I. *et al.*, *Synthesis*, 1976, 471, (*tetrafluoroborate, synth*)
Sakamoto, K. *et al.*, *Chem. Lett.*, 1977, 1133, (*tetrafluoroborate, synth, pmr, cmr*)
Olah, G.A. *et al.*, *J.O.C.*, 1977, **42**, 2237, (*tetrafluoroborate, cmr*)
Sekine, M. *et al.*, *J.A.C.S.*, 1983, **105**, 2044, (*use, bibl*)
Sekine, M. *et al.*, *J.O.C.*, 1983, **48**, 3112, (*use*)