



>>Entry Name: Sodium diethyldithiocarbamate

ENTRY UNDER REVIEW

Synonym(s): Diethyldithiocarbamic acid, sodium salt, 8CI. Diethylcarbamodithioic acid, sodium salt, 9CI. Ditiocarb sodium, INN. Dithiocarb. Cupral. Imuthiol. DTC

CAS Registry Number: 148-18-5

Na(S₂CNEt₂)

Molecular Formula: C₅H₁₀NNaS₂

Molecular Weight: 171.262

Accurate Mass: 171.015231

Percentage Composition: C 35.07%; H 5.89%; N 8.18%; Na 13.42%; S 37.45%

Use/Importance: Reagent for the extraction of metal cations. Antidote for acute metal poisoning. Component of copper electroless coating solns.

Physical Description: Cryst. (EtOH)

Melting Point: Mp 94-96°

Solubility: Sol. H₂O, EtOH

Hazard & Toxicity: LD₅₀ (rat, orl) 1500 mg/kg. Exp. reprod. and teratogenic effects

>>Derivative: Trihydrate

CAS Registry Number: 20624-25-3

Molecular Formula: C₅H₁₆NNaO₃S₂

Molecular Weight: 225.308

Accurate Mass: 225.046926

Percentage Composition: C 26.65%; H 7.16%; N 6.22%; Na 10.20%; O 21.30%; S 28.46%

Use/Importance: Commercially available

Physical Description: Orthorhombic cryst.

Aldrich: 22868-0

Fluka: 71481

Sigma: D9428

References:

Malissa, H. *et al.*, *Talanta*, 1961, **8**, 841, (*struct*)

Evtushenko, N.P., *Ukr. Khim. Zh. (Russ. edn.)*, 1965, **31**, 618, (*ir*)

Tosi, L. *et al.*, *J.C.S. Dalton*, 1978, 53, (*Raman*)

Van Gaal, H.L.M. *et al.*, *Inorg. Chem.*, 1979, **18**, 3251, (*cmr*)

Yu, J.C.M. *et al.*, *Anal. Chem.*, 1984, **56**, 1689, (*uses*)

Mereiter, K. *et al.*, *Inorg. Chim. Acta*, 1985, **98**, 71, (*trihydrate, struct, Raman*)

Sigma-Aldrich Library of Chemical Safety Data, 1988, **2**, 1206A, (*haz, trihydrate*)

Giboreau, P. *et al.*, *J.O.C.*, 1994, **59**, 1205, (*synth*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, SGJ000; SGJ500