



>>Entry Name: Sodium dimethyldithiocarbamate

ENTRY UNDER REVIEW

Synonym(s): Dimethylcarbamodithioic acid, sodium salt, 9CI. Dimethyldithiocarbamic acid, sodium salt, 8CI

CAS Registry Number: 128-04-1

$\text{Na}(\text{S}_2\text{CNMe}_2)$

Molecular Formula: $\text{C}_3\text{H}_6\text{NNaS}_2$

Molecular Weight: 143.209

Accurate Mass: 142.983931

Percentage Composition: C 25.16%; H 4.22%; N 9.78%; Na 16.05%; S 44.78%

Source/Synthesis: Synth. and manuf. by reaction of Me_2NH with CS_2 and NaOH in aq. soln.

Use/Importance: Constit. of biocide preps. Wood preservative, corrosion inhibitor, vulcanising agent (accelerator). Chelating agent for removal of heavy metals from flue gases

Other Data: Oxidation with air/ Cl_2 mixtures affords $\text{Me}_2\text{N}(\text{S})\text{SC}(\text{S})\text{NMe}_2$. Photolysis yields CS_2

Fluka: 71510

>>Derivative: Dihydrate

CAS Registry Number: 72140-17-1

Molecular Formula: $\text{C}_3\text{H}_{10}\text{NNaO}_2\text{S}_2$

Molecular Weight: 179.239

Percentage Composition: C 20.10%; H 5.62%; N 7.81%; Na 12.83%; O 17.85%; S 35.78%

Physical Description: Colourless cryst. (H_2O)

Melting Point: Mp 120-122°

References:

- Yamase, T. *et al.*, *Bull. Chem. Soc. Jpn.*, 1970, **43**, 934, (photol)
Maj, J. *et al.*, *Eur. J. Pharmacol.*, 1970, **9**, 183, (pharmacol)
Gorton, A.D.T., *NR Technol.*, 1975, **6**, 52; *CA*, 1976, **84**, 32303, (use, vulcanisation)
Ger. Pat., 1977, 2 533 989; *CA*, **86**, 189245, (oxidn)
Given, K.W. *et al.*, *J. Inorg. Nucl. Chem.*, 1977, **39**, 1309, (ms)
Oktavec, D. *et al.*, *Coll. Czech. Chem. Comm.*, 1979, **44**, 2487, (uv-vis)
Yasuda, S. *et al.*, *Spectrochim. Acta A*, 1979, **35**, 485, (x-ray, dihydrate)
Oktavec, D. *et al.*, *Coll. Czech. Chem. Comm.*, 1980, **45**, 1495, (ir)
Oskarsson, A. *et al.*, *Acta Cryst. C*, 1983, **39**, 66, (cryst struct, dihydrate)
Japan. Pat., 1983, 58 224 178; *CA*, 1984, **100**, 179028, (use, corrosion inhibition)
Kajdasz, R. *et al.*, *Proc. Int. Water Conf., Eng. Soc. West. Pa.*, 45th, 1984, 85; *CA*, 1985, **102**, 225778, (use, biocide)
Mereiter, K. *et al.*, *Inorg. Chim. Acta*, 1985, **98**, 71, (Raman, dihydrate)
Japan. Pat., 1985, 60 129 125; *CA*, **103**, 182990, (use, flue gas purifn)
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