



>>Entry Name: **2,5-Dimethylpyridine**, 9CI

Synonym(s): 2,5-Lutidine, 8CI

CAS Registry Number: 589-93-5

Related CAS Registry Numbers(s): 27175-64-0

Structure by analogy with 2,3-Dimethylpyridine, [FWV38-Q](#)

Molecular Formula: C₇H₉N

Molecular Weight: 107.155

Accurate Mass: 107.073499

Percentage Composition: C 78.46%; H 8.47%; N 13.07%

Source/Synthesis: Constit. of coal tar and shale oil

Physical Description: Liq.

Boiling Point: Bp 152-155°

Solubility: Sol. cold H₂O, less sol. hot, sol. EtOH

pKa Value: pK_a 6.4 (25°)

Refractive Index: n_D²⁰ 1.4990

Other Data: Steam-volatile

Hazard & Toxicity: Irritant. LD₅₀ (rat, orl) 800 mg/kg

Aldrich: 15135-1

>>Derivative: Picrate

CAS Registry Number: 2798-36-9

Melting Point: Mp 166-167°

>>Derivative: N-Oxide

CAS Registry Number: 4986-05-4

Molecular Formula: C₇H₉NO

Molecular Weight: 123.154

Accurate Mass: 123.068414

Percentage Composition: C 68.27%; H 7.37%; N 11.37%; O 12.99%

Physical Description: Cryst.

Melting Point: Mp 55-57°

Boiling Point: Bp_{0.3} 86°

References:

Aldrich Library of 13C and 1H FT NMR Spectra, 1992, **3**, 255C, (*nmr*)

Aldrich Library of FT-IR Spectra, 1st edn., 1985, **2**, 742B, (*ir*)

Aldrich Library of FT-IR Spectra: Vapor Phase, 1989, **3**, 1522D, (*ir*)

Sadtler Standard C-13 NMR Spectra, 1418, (*cmr*)

Coulson, E.A. *et al.*, *J.C.S.*, 1959, 1934, (*synth, props*)

Prostakov, N.S. *et al.*, *Zh. Obshch. Khim.*, 1963, **33**, 2928; *J. Gen. Chem. USSR (Engl. Transl.)*, 1963, **33**, 2854, (*synth, N-oxide*)

Green, J.H.S. *et al.*, *Spectrochim. Acta A*, 1970, **26**, 2139, (*ir, Raman*)

Takahashi, K. *et al.*, *J. Organomet. Chem.*, 1973, **50**, 1, (*pmr*)

Hejda, Z. *et al.*, *Coll. Czech. Chem. Comm.*, 1978, **43**, 3035, (*ms*)

Yajima, H. *et al.*, *J. Phys. Chem.*, 1986, **90**, 2589, (*uv, fluor*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, LJA000