>>**Entry Name: 4,5-Dimethylthiazole**
ENTRY UNDER REVIEW
Synonym(s): FEMA 3274

CAS Registry Number: 3581-91-7
Type of Compound Code(s): WE9999
Structure by analogy with 2,4-Dimethylthiazole, FWX44-Z

Molecular Formula: C_5H_7NS
Molecular Weight: 113.183
Accurate Mass: 113.029919
Percentage Composition: C 53.06%; H 6.23%; N 12.38%; S 28.33%
Melting Point: Mp 83-84°
Boiling Point: Bp 158°. Bp_{47} 75°
Solubility: Sol. Et_2O, EtOH
pKa Value: pK_a 3.73 (25°)

Aldrich: 21917-7

>>**Derivative:** Picrate

Physical Description: Cryst. (EtOH)
Melting Point: Mp 186-187°

>>**Derivative:** *N*-Oxide

Molecular Formula: C_5H_7NOS
Molecular Weight: 129.182
Accurate Mass: 129.024834
Percentage Composition: C 46.49%; H 5.46%; N 10.84%; O 12.39%; S 24.82%
Physical Description: Cryst. (EtOAc/hexane)
Melting Point: Mp 116-117°

>>**Derivative:** *N*-Me
Synonym(s): 3,4,5-Trimethylthiazolium

Molecular Formula: $C_6H_{10}NS^{(+)}$
Molecular Weight: 128.218
Accurate Mass: 128.053394
Percentage Composition: C 56.21%; H 7.86%; N 10.92%; S 25.01%
Physical Description: Cryst. (EtOH) (as iodide)
Melting Point: Mp 223-223.5 dec.° (iodide)

References:

Aldrich Library of 13C and 1H FT NMR Spectra, 1992, **3**, 109C, *(nmr)*
Aldrich Library of FT-IR Spectra: Vapor Phase, 1989, **3**, 1492D, *(ir)*
Buchman, E.R. *et al.*, *J.O.C.*, 1941, **6**, 764
Kurkjy, R.P. *et al.*, *J.A.C.S.*, 1952, **74**, 5778, *(synth)*
Haag, A. *et al.*, *Org. Mass Spectrom.*, 1976, **11**, 511, *(ms)*
Begtrup, M. *et al.*, *Acta Chem. Scand.*, 1992, **46**, 372, *(oxide)*
Fenaroli's Handbook of Flavor Ingredients, 3rd edn., (ed. Burdock, G.A.), CRC Press, 1995, **2**, 194
Encyclopedia of Food and Color Additives, (ed. Burdock, G.A.), CRC Press, 1997, 879