>>**Entry Name: 4,5-Dimethyl-2-nitroaniline**
Synonym(s): 6-Nitro-3,4-xylidine. 4,5-Dimethyl-2-nitrobenzenamine

CAS Registry Number: 6972-71-0
Structure by analogy with 2,3-Dimethyl-4-nitroaniline, DZX27-V

Molecular Formula: $C_8H_{10}N_2O_2$
Molecular Weight: 166.179
Accurate Mass: 166.074228
Percentage Composition: C 57.82%; H 6.07%; N 16.86%; O 19.26%
Physical Description: Brown-red prisms (EtOH)
Melting Point: Mp 139-140°

Aldrich: D17220-0

>>**Derivative:** *N*-Formyl

Molecular Formula: $C_9H_{10}N_2O_3$
Molecular Weight: 194.19
Accurate Mass: 194.069143
Percentage Composition: C 55.67%; H 5.19%; N 14.43%; O 24.72%
Physical Description: Yellow prisms
Melting Point: Mp 107-109°

>>**Derivative:** *N*-Ac

Molecular Formula: $C_{10}H_{12}N_2O_3$
Molecular Weight: 208.216
Accurate Mass: 208.084793
Percentage Composition: C 57.69%; H 5.81%; N 13.45%; O 23.05%
Physical Description: Pale yellow needles (EtOH)
Melting Point: Mp 107°

>>**Derivative:** *N*-Me

CAS Registry Number: 17978-54-0
Molecular Formula: $C_9H_{12}N_2O_2$
Molecular Weight: 180.206
Accurate Mass: 180.089878
Percentage Composition: C 59.99%; H 6.71%; N 15.55%; O 17.76%
Physical Description: Red powder
Melting Point: Mp 131-132°

References:

Aldrich Library of FT-IR Spectra, 1st edn., 1985, **1**, 1380A, *(ir)*
Aldrich Library of 13C and 1H FT NMR Spectra, 1992, **2**, 771A, *(nmr)*
Diepolder, E.*, Ber.*, 1909, **42**, 2917, *(synth, N-Ac)*
Suguya, T. *et al.*, *Synthesis*, 1995, 1257, *(N-formyl, synth, pmr)*
Brown, S.A. *et al.*, *Synth. Commun.*, 1996, **26**, 4065, *(N-Me)*