



>>Entry Name: 4-Fluoro-2-nitroaniline

Synonym(s): 4-Fluoro-2-nitrobenzenamine, 9CI

CAS Registry Number: 364-78-3

Structure by analogy with 2-Fluoro-3-nitroaniline, [FFZ62-Y](#)

Molecular Formula: $C_6H_5FN_2O_2$

Molecular Weight: 156.116

Accurate Mass: 156.033506

Percentage Composition: C 46.16%; H 3.23%; F 12.17%; N 17.94%; O 20.50%

Physical Description: Orange prisms (Et₂O)

Melting Point: Mp 93.5-94°

pKa Value: $pK_a -0.44$ (25°, HClO₄ aq.)

Aldrich: 16255-8

Fluka: 47127

Sigma: F5011

>>Derivative: *N*-Ac

Synonym(s): 4-Fluoro-2-nitroacetanilide

CAS Registry Number: 448-39-5

Molecular Formula: $C_8H_7FN_2O_3$

Molecular Weight: 198.153

Accurate Mass: 198.044071

Percentage Composition: C 48.49%; H 3.56%; F 9.59%; N 14.14%; O 24.22%

Physical Description: Pale yellow prisms (EtOH aq.)

Melting Point: Mp 71-75°

Aldrich: 36913-6

>>Derivative: *N*-Me

Molecular Formula: $C_7H_7FN_2O_2$

Molecular Weight: 170.143

Accurate Mass: 170.049156

Percentage Composition: C 49.42%; H 4.15%; F 11.17%; N 16.46%; O 18.81%

Physical Description: Red powder

Melting Point: Mp 73-74°

References:

Aldrich Library of 13C and 1H FT NMR Spectra, 1992, **2**, 744A; 1370B, (*nmr*)

Aldrich Library of Infrared Spectra, 3rd edn., 1981, 825A, (*ir*)

Swarts, F., *Rec. Trav. Chim. (J. R. Neth. Chem. Soc.)*, 1915, **35**, 131

Bradlow, H.L. *et al.*, *J.O.C.*, 1951, **16**, 1450

Takatori, K. *et al.*, *Yakugaku Zasshi*, 1958, **78**, 108, (*synth*)

Kavalek, J. *et al.*, *CA*, 1969, **71**, 60901, (*synth*)

Bil, M., *Chem. Ind. (London)*, 1969, 198, (*synth*)

Janu, I. *et al.*, *CA*, 1975, **82**, 111198, (*ir*)

Brown, S.A. *et al.*, *Synth. Commun.*, 1996, **26**, 4065, (*N*-Me)