>>**Entry Name: 2,4-Dinitroaniline,** 8CI
**Synonym(s):** 2,4-Dinitrobenzenamine, 9CI

**CAS Registry Number:** 97-02-9
Structure by analogy with 2,3-Dinitroaniline, FBB82-M

**Molecular Formula:** $C_6H_5N_3O_4$
**Molecular Weight:** 183.123
**Accurate Mass:** 183.028007
**Percentage Composition:** C 39.35%; H 2.75%; N 22.95%; O 34.95%
**Physical Description:** Yellow needles ($Me_2CO$ aq.)
**Melting Point:** Mp 188° (180°)
**pKa Value:** p$K_a$ –4.27 (25°, $H_2SO_4$ aq.)
**Hazard & Toxicity:** Potentially explosive. Fl. p. 224°. Skin absorption can cause dermatitis and cyanosis. Skin, eye and respiratory tract irritant. $LD_{50}$ (mus, orl) 370 mg/kg. Exp. reprod. and teratogenic effects

**Aldrich:** D19301-1
**Fluka:** 41850

>>**Derivative:** *N*-Ac
**Synonym(s):** 2,4-Dinitroacetanilide
**CAS Registry Number:** 610-53-7
**Molecular Formula:** $C_8H_7N_3O_5$
**Molecular Weight:** 225.16
**Accurate Mass:** 225.038572
**Percentage Composition:** C 42.68%; H 3.13%; N 18.66%; O 35.53%
**Physical Description:** Needles (EtOH)
**Melting Point:** Mp 121°
**Rare Chemicals Library:** S54062-5

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

**CAS Registry Number:** 2044-88-4
**Molecular Formula:** $C_7H_7N_3O_4$
**Molecular Weight:** 197.15
**Accurate Mass:** 197.043657
**Percentage Composition:** C 42.65%; H 3.58%; N 21.31%; O 32.46%
**Physical Description:** Yellow cryst. (EtOH aq.)
**Melting Point:** Mp 178°
**Rare Chemicals Library:** S50059-3

>>**Derivative:** *N*,*N*-Di-Me

**CAS Registry Number:** 1670-17-3
**Molecular Formula:** $C_8H_9N_3O_4$
**Molecular Weight:** 211.177
**Accurate Mass:** 211.059307
**Percentage Composition:** C 45.50%; H 4.30%; N 19.90%; O 30.31%
**Physical Description:** Yellow prisms ($C_6H_6$)
**Melting Point:** Mp 87°

>>**Derivative:** *N*-Et

**CAS Registry Number:** 3846-50-2
**Molecular Formula:** $C_8H_9N_3O_4$
**Molecular Weight:** 211.177
**Accurate Mass:** 211.059307
**Percentage Composition:** C 45.50%; H 4.30%; N 19.90%; O 30.31%
**Melting Point:** Mp 110-113°
**Aldrich:** 19404-2

**References:**