



>>Entry Name: **Diformylamine**

**Synonym(s):** *N*-Formylformamide, 9CI

**CAS Registry Number:** 18197-22-3

**Related CAS Registry Numbers(s):** 18197-24-5 18197-27-8 26944-32-1 62837-48-3 81584-00-1  
NH(CHO)<sub>2</sub>

**Molecular Formula:** C<sub>2</sub>H<sub>3</sub>NO<sub>2</sub>

**Molecular Weight:** 73.051

**Accurate Mass:** 73.016379

**Percentage Composition:** C 32.88%; H 4.14%; N 19.17%; O 43.80%

**Physical Description:** Cryst. (Et<sub>2</sub>O)

**Melting Point:** Mp 41.5° (39-40°)

**Boiling Point:** Bp<sub>12</sub> 119°

>>Derivative: Na salt

**CAS Registry Number:** 18197-26-7

**Use/Importance:** Reagent for synth. of primary amines

**Physical Description:** Cryst. solid

**Fluka:** 71494

>>Derivative: *N*-Ac

see *N,N*-Diformylacetamide, [CSR22-E](#)

>>Derivative: *N*-Me

**CAS Registry Number:** 18197-25-6

**Molecular Formula:** C<sub>3</sub>H<sub>5</sub>NO<sub>2</sub>

**Molecular Weight:** 87.078

**Accurate Mass:** 87.032029

**Percentage Composition:** C 41.38%; H 5.79%; N 16.09%; O 36.75%

**Physical Description:** Liq.

**Boiling Point:** Bp<sub>735</sub> 181-182°. Bp<sub>20</sub> 80-82°

>>Derivative: *N*-Et

**Molecular Formula:** C<sub>4</sub>H<sub>7</sub>NO<sub>2</sub>

**Molecular Weight:** 101.105

**Accurate Mass:** 101.047679

**Percentage Composition:** C 47.52%; H 6.98%; N 13.85%; O 31.65%

**Physical Description:** Liq.

**Boiling Point:** Bp<sub>10.5</sub> 70°

**References:**

Allenstein, E. *et al.*, *Chem. Ber.*, 1967, **100**, 3551; 1969, **102**, 4089, (*derivs*)

Noe, E.A. *et al.*, *J.A.C.S.*, 1973, **95**, 6118; 1975, **97**, 5811, (*synth, pmr, derivs*)

Yinglin, H. *et al.*, *Synthesis*, 1990, 122, (*synth, use, ir, pmr*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, FNL000