



**Synonym(s):** 1,2-Dihydro-2-methyl-5-(trifluoromethyl)-3*H*-pyrazol-3-one, 9Cl. 3-Hydroxy-2-methyl-5-(trifluoromethyl)pyrazole. 1-Methyl-3-(trifluoromethyl)-5-pyrazolinone. 5-Hydroxy-1-methyl-3-(trifluoromethyl)pyrazole

**CAS Registry Number:** 122431-37-2

**Molecular Formula:** C<sub>5</sub>H<sub>5</sub>F<sub>3</sub>N<sub>2</sub>O

**Molecular Weight:** 166.102

**Accurate Mass:** 166.035397

**Percentage Composition:** C 36.16%; H 3.03%; F 34.31%; N 16.87%; O 9.63%

**Use/Importance:** Aldehyde scavenger used in colour photographic materials

**Physical Description:** Prisms (HCl aq. or Et<sub>2</sub>O/petrol)

**Melting Point:** Mp 174-175.5°

>>Derivative: *N*-Benzyl

**CAS Registry Number:** 143706-79-0

**Molecular Formula:** C<sub>11</sub>H<sub>9</sub>F<sub>3</sub>N<sub>2</sub>O

**Molecular Weight:** 242.2

**Accurate Mass:** 242.066697

**Percentage Composition:** C 54.55%; H 3.75%; F 23.53%; N 11.57%; O 6.61%

**Physical Description:** Solid

**Melting Point:** Mp 224.5-225.5°

>>Derivative: *N*-Ph

**Molecular Formula:** C<sub>10</sub>H<sub>7</sub>F<sub>3</sub>N<sub>2</sub>O

**Molecular Weight:** 228.173

**Accurate Mass:** 228.051047

**Percentage Composition:** C 52.64%; H 3.09%; F 24.98%; N 12.28%; O 7.01%

**Physical Description:** Cryst. (EtOH aq.)

**Melting Point:** Mp 185-187°

#### References:

Gilman, H. *et al.*, *J.A.C.S.*, 1946, **68**, 426, (*synth*)

De Stevens, G. *et al.*, *J.A.C.S.*, 1959, **81**, 6292, (*derivs*)

Atherton, J.H. *et al.*, *J.C.S.(C)*, 1968, 1507, (*synth, pmr, F-19 nmr*)

Poulter, C.D. *et al.*, *J.O.C.*, 1981, **46**, 1532, (*synth, pmr, ir, ms*)

Lee, L.F. *et al.*, *J. Het. Chem.*, 1990, **27**, 243, (*N-Me derivs, synth, pmr, cmr, F-19 nmr, ir*)

Hamper, B.C. *et al.*, *J.O.C.*, 1992, **57**, 5680, (*derivs, synth, cmr, F-19 nmr, glc*)