



>>Entry Name: 5-Chloro-1-pentanol

CAS Registry Number: 5259-98-3

ClCH2CH2CH2CH2CH2OH

Molecular Formula: $C_5H_{11}ClO$

Molecular Weight: 122.594

Accurate Mass: 122.049842

Percentage Composition: C 48.99%; H 9.04%; Cl 28.92%; O 13.05%

Physical Description: Oil

Boiling Point: Bp_{10} 87-91°

Refractive Index: n_D^{20} 1.4520

Other Data: Unstable, loses HCl to give Tetrahydropyran [CSV12-V](#)

>>Derivative: Ac

CAS Registry Number: 20395-28-2

Molecular Formula: $C_7H_{13}ClO_2$

Molecular Weight: 164.631

Accurate Mass: 164.060407

Percentage Composition: C 51.07%; H 7.96%; Cl 21.53%; O 19.44%

Boiling Point: Bp_{10} 90-92°

Density: d_4^{20} 1.06

Refractive Index: n_D^{20} 1.4379

>>Derivative: Benzoyl

CAS Registry Number: 55092-47-2

Molecular Formula: $C_{12}H_{15}ClO_2$

Molecular Weight: 226.702

Accurate Mass: 226.076057

Percentage Composition: C 63.58%; H 6.67%; Cl 15.64%; O 14.11%

Boiling Point: Bp_2 141-143°

Density: d_{20}^{20} 1.11

Refractive Index: n_D^{20} 1.5169

>>Derivative: Me ether

Synonym(s): 1-Chloro-5-methoxypentane

Molecular Formula: $C_6H_{13}ClO$

Molecular Weight: 136.621

Accurate Mass: 136.065492

Percentage Composition: C 52.75%; H 9.59%; Cl 25.95%; O 11.71%

Boiling Point: Bp 168° (dec.). Bp_5 41°

Density: d_4^{20} 0.97

Refractive Index: n_D^{20} 1.4304

>>Derivative: Et ether

Synonym(s): 1-Chloro-5-ethoxypentane

Molecular Formula: $C_7H_{15}ClO$

Molecular Weight: 150.648

Accurate Mass: 150.081142

Percentage Composition: C 55.81%; H 10.04%; Cl 23.53%; O 10.62%

Boiling Point: Bp_{17} 72°

Refractive Index: n_D^{20} 1.4300

References:

- Bennett, G.M. *et al.*, *J.C.S.*, 1929, 268-274, (*synth, benzoyl*)
Palomaa, M.H. *et al.*, *Ber.*, 1931, **64**, 1606-1610, (*synth, ethers*)
Synerholm, M.E., *J.A.C.S.*, 1947, **69**, 2581-2582, (*synth, Ac*)
Frearson, P.M. *et al.*, *J.C.S.*, 1958, 3062-3064, (*synth, ethers*)
Ames, D.E., *J.C.S.*, 1963, 4363-4368, (*synth*)
Fitch, J.W. *et al.*, *J.O.C.*, 1983, **48**, 751-753, (*synth, Ac, pmr*)
King, J.F. *et al.*, *Phosphorus Sulfur Relat. Elem.*, 1987, **31**, 161-175, (*synth*)