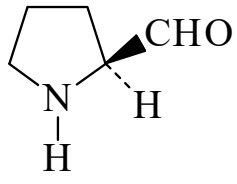
>>**Entry Name: 2-Pyrrolidinecarboxaldehyde**
Synonym(s): 2-Formylpyrrolidine. Prolinal



CAS Registry Number: 61480-98-6

Molecular Formula: C_5H_9NO
Molecular Weight: 99.132
Accurate Mass: 99.068414
Percentage Composition: C 60.58%; H 9.15%; N 14.13%; O 16.14%

>>**Variant:** (*S*)-form

CAS Registry Number: 88218-12-6
Molecular Formula: C_5H_9NO
Molecular Weight: 99.132
Accurate Mass: 99.068414
Percentage Composition: C 60.58%; H 9.15%; N 14.13%; O 16.14%

>>**Derivative:** Diethyl dithioacetal

CAS Registry Number: 105089-88-1
Molecular Formula: $C_9H_{19}NS_2$
Molecular Weight: 205.388
Accurate Mass: 205.095889
Percentage Composition: C 52.63%; H 9.32%; N 6.82%; S 31.22%
Physical Description: Pale-yellow oil
Optical Rotation: $[\alpha]_D^{23}$ –31.8 (c, 0.434 in $CHCl_3$)

>>**Derivative:** *N*-Benzyloxycarbonyl

CAS Registry Number: 71461-30-8
Molecular Formula: $C_{13}H_{15}NO_3$
Molecular Weight: 233.266
Accurate Mass: 233.105194
Percentage Composition: C 66.94%; H 6.48%; N 6.00%; O 20.58%
Optical Rotation: $[\alpha]_D^{24}$ –74.42 (c, 0.138 in $CHCl_3$)

>>**Derivative:** *tert*-Butyloxycarbonyl

CAS Registry Number: 69610-41-9
Extra CAS Registry Numbers(s): 59378-82-4 73365-02-3 117625-90-8
Molecular Formula: $C_{10}H_{17}NO_3$
Molecular Weight: 199.249
Accurate Mass: 199.120844
Percentage Composition: C 60.28%; H 8.60%; N 7.03%; O 24.09%
Use/Importance: Important intermediate in peptide synth.
Physical Description: Pale yellow liq.
Other Data: (*R*)-enantiomer also known

References:

Evans, D.A. *et al.*, *J.A.C.S.*, 1979, **101**, 371-378, *(S-tert-butyloxycarbonyl)*
Becker, Y. *et al.*, *J.O.C.*, 1980, **45**, 2145-2151, *(R-tert-butyloxycarbonyl)*
Frick, L. *et al.*, *Biochim. Biophys. Acta*, 1985, **529**, 311, *(synth, biochem)*
Langley, D.R. *et al.*, *J.O.C.*, 1987, **52**, 91, *(deriv, synth, pmr, ir, ms)*
McNulty, J. *et al.*, *Synth. Commun.*, 1992, **22**, 979-985, *(S-tert-butyloxycarbonyl)*
Drew, M.G.B. *et al.*, *J.C.S. Perkin 1*, 1998, 1627-1636, *(N-benzyl, N-Boc)*