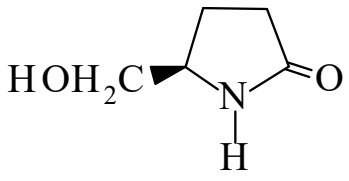
>>**Entry Name: 5-(Hydroxymethyl)-2-pyrrolidinone,** 9CI
Synonym(s): Pyroglutaminol



(*R*)-*form*

CAS Registry Number: 62400-75-3

Molecular Formula: $C_5H_9NO_2$
Molecular Weight: 115.132
Accurate Mass: 115.063329
Percentage Composition: C 52.16%; H 7.88%; N 12.17%; O 27.79%

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

CAS Registry Number: 66673-40-3
Molecular Formula: $C_5H_9NO_2$
Molecular Weight: 115.132
Accurate Mass: 115.063329
Percentage Composition: C 52.16%; H 7.88%; N 12.17%; O 27.79%
Physical Description: Cryst. ($EtOAc/CHCl_3$)
Melting Point: Mp 73-74° (61-63°)
Optical Rotation: $[\alpha]_D^{26}$–33.3 (c, 1.76 in EtOH)
Fluka: 55820

>>**Derivative:** *O*-Triphenylmethyl

Molecular Formula: $C_{24}H_{23}NO_2$
Molecular Weight: 357.451
Accurate Mass: 357.172879
Percentage Composition: C 80.64%; H 6.49%; N 3.92%; O 8.95%
Melting Point: Mp 165-167°
Optical Rotation: $[\alpha]_D^{20}$–15.8 (c, 2 in $CHCl_3$)
Other: Kiralchem

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

CAS Registry Number: 17342-08-4
Molecular Formula: $C_5H_9NO_2$
Molecular Weight: 115.132
Accurate Mass: 115.063329
Percentage Composition: C 52.16%; H 7.88%; N 12.17%; O 27.79%
Physical Description: Cryst.
Melting Point: Mp 86-87° (65-68°)
Boiling Point: $Bp_{0.04}$ 148°
Optical Rotation: $[\alpha]_D^{20}$+34.5 (c, 1.04 in EtOH)
Aldrich: 36636-6
Fluka: 55830

>>**Derivative:** *O*-(4-Methylbenzenesulfonyl)

CAS Registry Number: 51693-17-5
Physical Description: Solid (toluene)
Melting Point: Mp 129-130°
Aldrich: 44453-7

>>**Derivative:** *O*-Triphenylmethyl

CAS Registry Number: 105526-85-0
Molecular Formula: $C_{24}H_{23}NO_2$
Molecular Weight: 357.451
Accurate Mass: 357.172879
Percentage Composition: C 80.64%; H 6.49%; N 3.92%; O 8.95%
Use/Importance: Used in asym. Diels-Alder reactions and asym. conjugate addns.
Melting Point: Mp 164-166°