



CAS Registry Number: 28528-82-7
Molecular Formula: C₆H₁₃NO₆
Molecular Weight: 195.172
Percentage Composition: C 36.92%; H 6.71%; N 7.18%; O 49.19%
Physical Description: Cryst. (EtOH aq.)
Melting Point: Mp 175-176°
Optical Rotation: $[\alpha]_{\text{D}}^{25} -27$ (c, 0.93 in H₂O)

>> **Variant:** (2*S*,3*S*)-form
Synonym(s): D-Threoninol

CAS Registry Number: 44520-55-0
Molecular Formula: C₄H₁₁NO₂
Molecular Weight: 105.136
Accurate Mass: 105.078979
Percentage Composition: C 45.70%; H 10.55%; N 13.32%; O 30.44%
Boiling Point: Bp_{0.075} 110-120° (lit. gives a pressure range)
Optical Rotation: $[\alpha]_{\text{D}}^{24.5} \pm 6.4$ (c, 1.257 in EtOH)
Aldrich: 47002-3

>> **Derivative:** Oxalate (1:1)

Molecular Formula: C₆H₁₃NO₆
Molecular Weight: 195.172
Percentage Composition: C 36.92%; H 6.71%; N 7.18%; O 49.19%
Physical Description: Cryst. (EtOH aq.)
Melting Point: Mp 187-188°
Optical Rotation: $[\alpha]_{\text{D}}^{25} +7.15$ (c, 0.7 in H₂O)

>> **Derivative:** Oxalate (2:1)

Molecular Formula: C₁₀H₂₄O₈N₂
Molecular Weight: 300.308
Percentage Composition: C 40.00%; H 8.05%; O 42.62%; N 9.33%
Physical Description: Leaflets (EtOH aq.)
Melting Point: Mp 188-189°
Optical Rotation: $[\alpha]_{\text{D}}^{22.5} \mp 3.2$ (c, 1.078 in H₂O)

>> **Derivative:** *N*-Phthalimide

Molecular Formula: C₁₂H₁₃NO₄
Molecular Weight: 235.239
Accurate Mass: 235.084459
Percentage Composition: C 61.27%; H 5.57%; N 5.95%; O 27.21%
Melting Point: Mp 97-98°
Optical Rotation: $[\alpha]_{\text{D}}^{25} -0.4$ (H₂O)

>> **Derivative:** *N*-Phthalimide, di-Ac

Molecular Formula: C₁₆H₁₇NO₆
Molecular Weight: 319.313
Accurate Mass: 319.105589
Percentage Composition: C 60.18%; H 5.37%; N 4.39%; O 30.06%
Boiling Point: Bp_{0.05} 175-180°
Optical Rotation: $[\alpha]_{\text{D}}^{25} -102.1$ (EtOH)

>> **Variant:** (2*RS*,3*RS*)-form
Synonym(s): DL-Threoninol

CAS Registry Number: 108102-49-4
Molecular Formula: C₄H₁₁NO₂
Molecular Weight: 105.136
Accurate Mass: 105.078979
Percentage Composition: C 45.70%; H 10.55%; N 13.32%; O 30.44%
Boiling Point: Bp₂ 112-113°
Refractive Index: n_D²¹ 1.4833