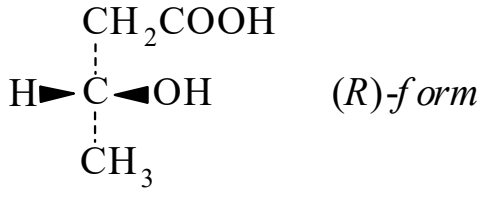
>>**Entry Name: 3-Hydroxybutanoic acid,** 9CI
ENTRY UNDER REVIEW



(*R*)-*form*

CAS Registry Number: 300-85-6
Related CAS Registry Numbers(s): 5864-66-4 25654-45-9 29435-48-1 35054-79-6 127604-16-4

Molecular Formula: $C_4H_8O_3$
Molecular Weight: 104.105
Accurate Mass: 104.047345
Percentage Composition: C 46.15%; H 7.75%; O 46.11%
Biological Source: Isol. from bacteria, in polymeric form
Use/Importance: The non-toxic homopolymer (*PHB*) and copolymer with 3-hydroxypentanoic acid (*Biopol*) are prod. microbially and used in biodegradable plastics applications. Reputed to have aphrodisiac properties

Aldrich: 16689-8
Sigma: H6376

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

CAS Registry Number: 625-72-9

Molecular Formula: $C_4H_8O_3$
Molecular Weight: 104.105
Accurate Mass: 104.047345
Percentage Composition: C 46.15%; H 7.75%; O 46.11%
Biological Source: Isol. from the spider *Linyphia triangularis*
Use/Importance: Sex pheromone
Physical Description: V. hygroscopic cryst.
Melting Point: Mp 49-50° (44-46°)
Optical Rotation: $[\alpha]_D$ –24.7 (c, 5 in H_2O). $[\alpha]_D^{16}$–24.9
Solubility: V. sol. H_2O, EtOH; insol. C_6H_6
Fluka: 54920

>>**Derivative:** Na salt

CAS Registry Number: 13613-65-5
Melting Point: Mp 149-155°
Optical Rotation: $[\alpha]_D^{19}$–11 (c, 10 in H_2O)
Aldrich: 29836-0
Fluka: 54963
Sigma: H0265

>>**Derivative:** Me ester

CAS Registry Number: 3976-69-0
Molecular Formula: $C_5H_{10}O_3$
Molecular Weight: 118.132
Accurate Mass: 118.062995
Percentage Composition: C 50.84%; H 8.53%; O 40.63%
Boiling Point: Bp_{13} 67-68.5°
Optical Rotation: $[\alpha]_D^{25}$–45.8 (c, 1.17 in $CHCl_3$)
Density: d_{20}^{20} 1.06
Aldrich: 24315-9
Fluka: 54957
Sigma: M1016