>>**Entry Name: 2-Ethyl-3-oxobutanoic acid,** 9CI
Synonym(s): 2-Acetylbutyric acid

CAS Registry Number: 4433-85-6
$H_3CCOCH(COOH)CH_2CH_3$

Molecular Formula: $C_6H_{10}O_3$
Molecular Weight: 130.143
Accurate Mass: 130.062995
Percentage Composition: C 55.37%; H 7.74%; O 36.88%

>>**Variant:** (±)-form

Molecular Formula: $C_6H_{10}O_3$
Molecular Weight: 130.143
Accurate Mass: 130.062995
Percentage Composition: C 55.37%; H 7.74%; O 36.88%

>>**Derivative:** Me ester

CAS Registry Number: 51756-08-2
Molecular Formula: $C_7H_{12}O_3$
Molecular Weight: 144.17
Accurate Mass: 144.078645
Percentage Composition: C 58.32%; H 8.39%; O 33.29%
Boiling Point: Bp 190°

>>**Derivative:** Et ester

CAS Registry Number: 607-97-6
Molecular Formula: $C_8H_{14}O_3$
Molecular Weight: 158.197
Accurate Mass: 158.094295
Percentage Composition: C 60.74%; H 8.92%; O 30.34%
Boiling Point: Bp 198°. Bp_7 70-71°
Solubility: Mod. sol. H_2O
Density: d_4^{25}0.975
pKa Value: pK_{a1} 13 (23°)
Refractive Index: n_D^{19} 1.4226
Aldrich: 16526-3
Fluka: 2840
Sigma: A6305

>>**Derivative:** Et ester, semicarbazone

Physical Description: Cryst.
Melting Point: Mp 154 dec.°

>>**Derivative:** Amide

Molecular Formula: $C_6H_{11}NO_2$
Molecular Weight: 129.158
Accurate Mass: 129.078979
Percentage Composition: C 55.80%; H 8.58%; N 10.84%; O 24.77%
Physical Description: Needles (H_2O)
Boiling Point: Subl. 95-96°

References:

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Michael, A.*, J. Prakt. Chem.*, 1905, **72**, 553
Ioffe, S.T. *et al.*, *Tet. Lett.*, 1965, 593
Jacquier, R. *et al.*, *Bull. Soc. Chim. Fr.*, 1969, 3694