



>>Entry Name: **3-Oxopropanoic acid**, 9CI

Synonym(s): Malonaldehydic acid, 8CI. Formylacetic acid. Aldehydoacetic acid. Formylethanoic acid. 3-Hydroxy-2-propenoic acid, 9CI. 3-Hydroxyacrylic acid

CAS Registry Number: 926-61-4

Related CAS Registry Numbers(s): 1001-26-9

$\text{OHCCH}_2\text{COOH} \ll \gg \text{HOCH=CHCOOH}$

Molecular Formula: $\text{C}_3\text{H}_4\text{O}_3$

Molecular Weight: 88.063

Accurate Mass: 88.016045

Percentage Composition: C 40.92%; H 4.58%; O 54.50%

Sigma: M7013

>>Variant: Oxo-form

Molecular Formula: $\text{C}_3\text{H}_4\text{O}_3$

Molecular Weight: 88.063

Accurate Mass: 88.016045

Percentage Composition: C 40.92%; H 4.58%; O 54.50%

Physical Description: Pale-yellow oil

Other Data: Dec. above 50°

>>Derivative: Oxime (*E*-)

Synonym(s): 3-(Hydroxyimino)propanoic acid. Isonitrosopropanoic acid

Molecular Formula: $\text{C}_3\text{H}_5\text{NO}_3$

Molecular Weight: 103.077

Accurate Mass: 103.026944

Percentage Composition: C 34.96%; H 4.89%; N 13.59%; O 46.57%

Melting Point: Mp 117-118° (114°)

>>Derivative: Semicarbazone

Physical Description: Cryst.

Melting Point: Mp 116 dec.°

>>Derivative: 2,4-Dinitrophenylhydrazone

CAS Registry Number: 23130-58-7

Physical Description: Cryst. (EtOH)

Melting Point: Mp 160 dec.°

>>Derivative: Me ester

CAS Registry Number: 63857-17-0

Molecular Formula: $\text{C}_4\text{H}_6\text{O}_3$

Molecular Weight: 102.09

Accurate Mass: 102.031695

Percentage Composition: C 47.06%; H 5.92%; O 47.02%

Other Data: Unstable, appears to be known only as derivs.

>>Derivative: Me ester, semicarbazone

Physical Description: Cryst. (MeOH)

Melting Point: Mp 163°

>>Derivative: Me ester, 2,4-dinitrophenylhydrazone

CAS Registry Number: 1928-98-9

Physical Description: Cryst. (EtOH)

Melting Point: Mp 117°