



>>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°