

# 3-Oxobutan-2-yl (E)-2-methylbut-2-enoate

## InChI:

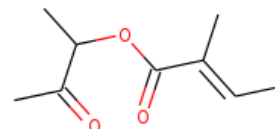
InChI=1S/C9H14O3/c1-5-6(2)9(11)12-8(4)7(3)10/h5,8H,1-4H3/b6-5+

InChI Key: PNUCZORMJRDQRQ-AATRIKPKSA-N

Formula: C9H14O3

SMILES: CC=C(C)C(=O)OC(C)C(C)=O

Molecular Weight: 170.21



## Physical Properties

Property	Value	Unit	Source
$\Delta_f G^\circ$	-268.71	kJ/mol	Joback Method
$\Delta_f H^\circ_{\text{gas}}$	-484.32	kJ/mol	Joback Method
$\Delta_{\text{fus}} H^\circ$	18.82	kJ/mol	Joback Method
$\Delta_{\text{vap}} H^\circ$	51.18	kJ/mol	Joback Method
$\log P_{\text{oct/wat}}$	1.473		Crippen Method
$P_c$	2746.90	kPa	Joback Method
$T_{\text{boil}}$	539.08	K	Joback Method
$T_c$	737.09	K	Joback Method
$T_{\text{fus}}$	279.24	K	Joback Method
$V_c$	0.544	m <sup>3</sup> /kg-mol	Joback Method

## Temperature Dependent Properties

Property	Value	Unit	Temperature (K)	Source
$C_{p,\text{gas}}$	325.07	J/mol×K	539.08	Joback Method

## Sources

**Joback Method:** [https://en.wikipedia.org/wiki/Joback\\_method](https://en.wikipedia.org/wiki/Joback_method)

**NIST Webbook:**

[http://webbook.nist.gov/cgi/inchi/InChI=1S/C9H14O3/c1-5-6\(2\)9\(11\)12-8\(4\)7\(3\)10/h5,8H,1-4H3/b6-5+](http://webbook.nist.gov/cgi/inchi/InChI=1S/C9H14O3/c1-5-6(2)9(11)12-8(4)7(3)10/h5,8H,1-4H3/b6-5+)

**Crippen Method:** <http://pubs.acs.org/doi/abs/10.1021/ci9903071>

## Legend

$C_{p, gas}$ : Ideal gas heat capacity (J/mol×K).

$\Delta_f G^\circ$ : Standard Gibbs free energy of formation (kJ/mol).

$\Delta_f H^\circ_{gas}$ : Enthalpy of formation at standard conditions (kJ/mol).

$\Delta_{fus} H^\circ$ : Enthalpy of fusion at standard conditions (kJ/mol).

$\Delta_{vap} H^\circ$ : Enthalpy of vaporization at standard conditions (kJ/mol).

$\log P_{oct/wat}$ : Octanol/Water partition coefficient .

$P_c$ : Critical Pressure (kPa).

$T_{boil}$ : Normal Boiling Point Temperature (K).

$T_c$ : Critical Temperature (K).

$T_{fus}$ : Normal melting (fusion) point (K).

$V_c$ : Critical Volume (m<sup>3</sup>/kg-mol).

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