

# (Z)-3-Penten-2-one

Inchi:	InChI=1S/C5H8O/c1-3-4-5(2)6/h3-4H,1-2H3/b4-3-
InchiKey:	LABTWGUMFABVFG-ARJAWSKDSA-N
Formula:	C5H8O
SMILES:	CC=CC(C)=O
Mol. weight [g/mol]:	84.12

## Physical Properties

Property code	Value	Unit	Source
gf	-57.48	kJ/mol	Joback Method
hf	-141.89	kJ/mol	Joback Method
hfus	10.51	kJ/mol	Joback Method
hvap	33.43	kJ/mol	Joback Method
log10ws	-1.05		Crippen Method
logp	1.151		Crippen Method
mcvol	78.580	ml/mol	McGowan Method
pc	3990.60	kPa	Joback Method
rinpol	732.00		NIST Webbook
tb	371.83	K	Joback Method
tc	559.72	K	Joback Method
tf	190.96	K	Joback Method
vc	0.301	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	127.73	J/molxK	371.83	Joback Method
cpg	165.62	J/molxK	528.40	Joback Method
cpg	158.80	J/molxK	497.09	Joback Method
cpg	151.61	J/molxK	465.77	Joback Method
cpg	144.05	J/molxK	434.46	Joback Method
cpg	136.10	J/molxK	403.14	Joback Method
cpg	172.10	J/molxK	559.72	Joback Method
dvisc	0.0002382	Paxs	371.83	Joback Method
dvisc	0.0003022	Paxs	341.68	Joback Method

dvisc	0.0004016	Paxs	311.54	Joback Method
dvisc	0.0005671	Paxs	281.39	Joback Method
dvisc	0.0008700	Paxs	251.25	Joback Method
dvisc	0.0014998	Paxs	221.11	Joback Method
dvisc	0.0030707	Paxs	190.96	Joback Method

## Sources

<b>Joback Method:</b>	<a href="https://en.wikipedia.org/wiki/Joback_method">https://en.wikipedia.org/wiki/Joback_method</a>
<b>McGowan Method:</b>	<a href="http://link.springer.com/article/10.1007/BF02311772">http://link.springer.com/article/10.1007/BF02311772</a>
<b>NIST Webbook:</b>	<a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=R617322&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=R617322&amp;Units=SI</a>
<b>Crippen Method:</b>	<a href="http://pubs.acs.org/doi/abs/10.1021/ci990307l">http://pubs.acs.org/doi/abs/10.1021/ci990307l</a>
<b>Crippen Method:</b>	<a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.com/doc/models/crippen_log10ws</a>

## Legend

<b>cpg:</b>	Ideal gas heat capacity
<b>dvisc:</b>	Dynamic viscosity
<b>gf:</b>	Standard Gibbs free energy of formation
<b>hf:</b>	Enthalpy of formation at standard conditions
<b>hfus:</b>	Enthalpy of fusion at standard conditions
<b>hvap:</b>	Enthalpy of vaporization at standard conditions
<b>log10ws:</b>	Log10 of Water solubility in mol/l
<b>logp:</b>	Octanol/Water partition coefficient
<b>mcvol:</b>	McGowan's characteristic volume
<b>pc:</b>	Critical Pressure
<b>rinpol:</b>	Non-polar retention indices
<b>tb:</b>	Normal Boiling Point Temperature
<b>tc:</b>	Critical Temperature
<b>tf:</b>	Normal melting (fusion) point
<b>vc:</b>	Critical Volume

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