8-Nonen-2-one

Other names: Non-8-en-2-one
Inchi: InChI=1S/C9H16O/c1-3-4-5-6-7-8-9(2)10/h3H,1,4-8H2,2H3
InchiKey: OIFXLYCBBBXCIB-UHFFFAOYSA-N
Formula: C9H16O
SMILES: C=CCCCCCC(C)=O
Mol. weight [g/mol]: 140.22
CAS: 5009-32-5

Physical Properties

Property code	Value	Unit	Source
gf	-16.18	kJ/mol	Joback Method
hf	-216.24	kJ/mol	Joback Method
hfus	19.38	kJ/mol	Joback Method
hvap	41.70	kJ/mol	Joback Method
log10ws	-2.72		Crippen Method
logp	2.712		Crippen Method
mcvol	134.940	ml/mol	McGowan Method
pc	2558.51	kPa	Joback Method
rinpol	1088.00		NIST Webbook
rinpol	1055.00		NIST Webbook
rinpol	1085.00		NIST Webbook
rinpol	1080.00		NIST Webbook
rinpol	1079.00		NIST Webbook
rinpol	1085.00		NIST Webbook
ripol	1494.00		NIST Webbook
ripol	1484.00		NIST Webbook
ripol	1473.00		NIST Webbook
tb	455.87	K	Joback Method
tc	633.46	K	Joback Method
tf	239.36	K	Joback Method
vc	0.526	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	280.91	J/mol×K	455.87	Joback Method
cpg	293.86	J/mol×K	485.47	Joback Method
cpg	306.26	J/mol×K	515.07	Joback Method
cpg	318.12	J/mol×K	544.67	Joback Method
cpg	329.45	J/mol×K	574.26	Joback Method
cpg	340.27	J/mol×K	603.86	Joback Method
cpg	350.60	J/mol×K	633.46	Joback Method
dvisc	0.0040460	Pa×s	239.36	Joback Method
dvisc	0.0019443	Pa×s	275.44	Joback Method
dvisc	0.0011072	Pa×s	311.53	Joback Method
dvisc	0.0007087	Pa×s	347.62	Joback Method
dvisc	0.0004934	Pa×s	383.70	Joback Method
dvisc	0.0003655	Pa×s	419.79	Joback Method
dvisc	0.0002840	Pa×s	455.87	Joback Method

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C5009325&Units=SI
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method: https://www.chemeo.com/doc/models/crippen_log10ws
Joback Method: https://en.wikipedia.org/wiki/Joback_method
McGowan Method: http://link.springer.com/article/10.1007/BF02311772

Legend

cpg: Ideal gas heat capacity
dvisc: Dynamic viscosity
gf: Standard Gibbs free energy of formation
hf: Enthalpy of formation at standard conditions
hfus: Enthalpy of fusion at standard conditions
hvap: Enthalpy of vaporization at standard conditions
log10ws: Log10 of Water solubility in mol/l
logp: Octanol/Water partition coefficient
mcvol: McGowan's characteristic volume
pc: Critical Pressure
rinpol: Non-polar retention indices
ripol: Polar retention indices

tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume