

2-Octenoic acid, cis-

Other names:	2-octenoic acid (Z)
Inchi:	InChI=1S/C8H14O2/c1-2-3-4-5-6-7-8(9)10/h6-7H,2-5H2,1H3,(H,9,10)/b7-6-
InchiKey:	CWMPPVPFLSZGCY-SREVYHEPSA-N
Formula:	C8H14O2
SMILES:	CCCCC=CC(=O)O
Mol. weight [g/mol]:	142.20
CAS:	1577-96-4

Physical Properties

Property code	Value	Unit	Source
gf	-169.04	kJ/mol	Joback Method
hf	-356.04	kJ/mol	Joback Method
hfus	22.36	kJ/mol	Joback Method
hvap	56.78	kJ/mol	Joback Method
log10ws	-2.12		Crippen Method
logp	2.208		Crippen Method
mcvol	126.720	ml/mol	McGowan Method
pc	3159.72	kPa	Joback Method
tb	532.65	K	Joback Method
tc	708.47	K	Joback Method
tf	285.59	K	Joback Method
vc	0.488	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	290.94	J/mol×K	532.65	Joback Method
cpg	301.30	J/mol×K	561.95	Joback Method
cpg	311.18	J/mol×K	591.26	Joback Method
cpg	320.59	J/mol×K	620.56	Joback Method
cpg	329.56	J/mol×K	649.86	Joback Method
cpg	338.09	J/mol×K	679.17	Joback Method
cpg	346.22	J/mol×K	708.47	Joback Method
dvisc	0.0161455	Paxs	285.59	Joback Method

dvisc	0.0042862	Paxs	326.77	Joback Method
dvisc	0.0015311	Paxs	367.94	Joback Method
dvisc	0.0006729	Paxs	409.12	Joback Method
dvisc	0.0003437	Paxs	450.30	Joback Method
dvisc	0.0001965	Paxs	491.47	Joback Method
dvisc	0.0001225	Paxs	532.65	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C1577964&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Joback Method:	https://en.wikipedia.org/wiki/Joback_method

Legend

cp_g:	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:	Log ₁₀ of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
m_cvol:	McGowan's characteristic volume
pc:	Critical Pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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