

Oxetane, 3-ethyl

Inchi:	InChI=1S/C5H10O/c1-2-5-3-6-4-5/h5H,2-4H2,1H3
InchiKey:	CGRJJOYCFCCGPX-UHFFFAOYSA-N
Formula:	C5H10O
SMILES:	CCC1COC1
Mol. weight [g/mol]:	86.13

Physical Properties

Property code	Value	Unit	Source
gf	-46.25	kJ/mol	Joback Method
hf	-211.89	kJ/mol	Joback Method
hfus	12.72	kJ/mol	Joback Method
hvap	31.32	kJ/mol	Joback Method
log10ws	-0.66		Crippen Method
logp	1.043		Crippen Method
mcvol	76.320	ml/mol	McGowan Method
pc	4151.61	kPa	Joback Method
rinpol	736.00		NIST Webbook
tb	351.76	K	Joback Method
tc	540.55	K	Joback Method
tf	187.10	K	Joback Method
vc	0.285	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	131.63	J/molxK	351.76	Joback Method
cpg	143.00	J/molxK	383.22	Joback Method
cpg	153.81	J/molxK	414.69	Joback Method
cpg	164.08	J/molxK	446.15	Joback Method
cpg	173.83	J/molxK	477.62	Joback Method
cpg	183.08	J/molxK	509.08	Joback Method
cpg	191.86	J/molxK	540.55	Joback Method
dvisc	0.0020485	Paxs	187.10	Joback Method
dvisc	0.0012645	Paxs	214.54	Joback Method

dvisc	0.0008708	Paxs	241.99	Joback Method
dvisc	0.0006471	Paxs	269.43	Joback Method
dvisc	0.0005079	Paxs	296.87	Joback Method
dvisc	0.0004154	Paxs	324.32	Joback Method
dvisc	0.0003505	Paxs	351.76	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=R6714&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

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

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