4,4-Dimethyl-2-oxazoline

Other names:	4,4-Dimethyloxazoline
	Oxazole, 4,5-dihydro-4,4-dimethyl-
	4,4-Dimethyl-4,5-dihydro-1,3-oxazole
	4,5-Dihydro-4,4-dimethyloxazole
Inchi:	InChI=1S/C5H9NO/c1-5(2)3-7-4-6-5/h4H,3H2,1-2H3
InchiKey:	KOAMXHRRVFDWRQ-UHFFFAOYSA-N
Formula:	C5H9NO
SMILES:	CC1(C)COC=N1
Mol. weight [g/mol]:	99.13
CAS:	30093-99-3

Physical Properties

Property code	Value	Unit	Source
gf	82.90	kJ/mol	Joback Method
hf	-74.06	kJ/mol	Joback Method
hfus	10.68	kJ/mol	Joback Method
hvap	36.84	kJ/mol	Joback Method
log10ws	-0.67		Crippen Method
logp	0.824		Crippen Method
mcvol	82.000	ml/mol	McGowan Method
pc	4789.21	kPa	Joback Method
tb	409.13	K	Joback Method
tc	633.58	K	Joback Method
tf	279.78	K	Joback Method
vc	0.310	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	165.63	J/mol×K	409.13	Joback Method
cpg	179.21	J/mol×K	446.54	Joback Method
cpg	191.73	J/mol×K	483.95	Joback Method
cpg	203.29	J/mol×K	521.36	Joback Method
cpg	214.01	J/mol×K	558.76	Joback Method

cpg	223.96	J/mol×K	596.17	Joback Method
cpg	233.27	J/mol×K	633.58	Joback Method

Sources

Joback Method:	https://en.wikipedia.org/wiki/Joback_method
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C30093993&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

Legend

cpg:	Ideal gas heat capacity
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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume