2-Propenamide, N-(1,1-dimethyl-3-oxobutyl)-

Other names:	Acrylamide, N-(1,1-dimethyl-3-oxobutyl)-
	Diacetone acrylamide
	N-(1,1-Dimethyl-3-oxobutyl)acrylamide
	N-(1,1-Dimethyl-3-oxobutyl)-2-propenamide
	N-(2-(2-Methyl-4-oxopentyl))acrylamide
Inchi:	InChI=1S/C9H15NO2/c1-5-8(12)10-9(3,4)6-7(2)11/h5H,1,6H2,2-4H3,(H,10,12)
InchiKey:	OMNKZBIFPJNNIO-UHFFFAOYSA-N
Formula:	C9H15NO2
SMILES:	C=CC(=O)NC(C)(C)CC(C)=O
Mol. weight [g/mol]:	169.22
CAS:	2873-97-4

Physical Properties

Property code	Value	Unit	Source
gf	-52.87	kJ/mol	Joback Method
hf	-284.10	kJ/mol	Joback Method
hfus	18.67	kJ/mol	Joback Method
hvap	53.59	kJ/mol	Joback Method
log10ws	-1.80		Crippen Method
logp	1.046		Crippen Method
mcvol	146.490	ml/mol	McGowan Method
pc	2823.32	kPa	Joback Method
tb	556.68	K	Joback Method
tc	756.73	K	Joback Method
tf	344.37	K	Joback Method
vc	0.556	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	351.49	J/mol×K	556.68	Joback Method
cpg	364.49	J/mol×K	590.02	Joback Method
cpg	376.69	J/mol×K	623.36	Joback Method
cpg	388.14	J/mol×K	656.71	Joback Method

cpg	398.87	J/mol×K	690.05	Joback Method
cpg	408.93	J/mol×K	723.39	Joback Method
cpg	418.35	J/mol×K	756.73	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C2873974&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
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