Acetamide, N-acetyl-N-methyl-

Other names:	Diacetamide, N-methyl-
	N-Methyldiacetamide
	N,N-Diacetylmethylamine
	N-Methyl-N-acetylacetamide
	N-acetyl-N-methylacetamide
Inchi:	InChI=1S/C5H9NO2/c1-4(7)6(3)5(2)8/h1-3H3
InchiKey:	ZNQFZPCFVNOXJQ-UHFFFAOYSA-N
Formula:	C5H9NO2
SMILES:	CC(=O)N(C)C(C)=O
Mol. weight [g/mol]:	115.13
CAS:	1113-68-4

Physical Properties

Property code	Value	Unit	Source
gf	-155.84	kJ/mol	Joback Method
hf	-304.16	kJ/mol	Joback Method
hfus	14.92	kJ/mol	Joback Method
hvap	42.26	kJ/mol	Joback Method
log10ws	-0.04		Crippen Method
logp	0.011		Crippen Method
mcvol	94.430	ml/mol	McGowan Method
pc	4036.37	kPa	Joback Method
tb	466.00 ± 1.00	K	NIST Webbook
tc	623.37	K	Joback Method
tf	278.44	K	Joback Method
vc	0.345	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	184.27	J/mol×K	433.98	Joback Method
cpg	193.64	J/mol×K	465.54	Joback Method
cpg	202.56	J/mol×K	497.11	Joback Method
cpg	211.03	J/mol×K	528.67	Joback Method

cpg	219.07	J/mol×K	560.24	Joback Method
cpg	226.69	J/mol×K	591.80	Joback Method
cpg	233.91	J/mol×K	623.37	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C1113684&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