Acetamide, 2,2,2-trifluoro-N-methyl-N-(trifluoroacetyl)-

Other names: N-Methylbis(trifluoroacetamide)
2,2,2-trifluoro-N-methyl-N-(trifluoroacetyl)acetamide
Inchi: InChI=1S/C5H3F6NO2/c1-12(2(13)4(6,7)8)3(14)5(9,10)11/h1H3
InchiKey: AWGBWLXGUPTXHF-UHFFFAOYSA-N
Formula: C5H3F6NO2
SMILES: CN(C(=O)C(F)(F)F)C(=O)C(F)(F)F
Mol. weight [g/mol]: 223.07
CAS: 685-27-8

Physical Properties

Property code	Value	Unit	Source
gf	-1319.02	kJ/mol	Joback Method
hf	-1498.32	kJ/mol	Joback Method
hfus	18.58	kJ/mol	Joback Method
hvap	34.77	kJ/mol	Joback Method
log10ws	-1.36		Crippen Method
logp	1.096		Crippen Method
mcvol	105.050	ml/mol	McGowan Method
pc	3065.95	kPa	Joback Method
rinpol	773.00		NIST Webbook
tb	423.14	K	Joback Method
tc	580.05	K	Joback Method
tf	286.82	K	Joback Method
vc	0.431	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	239.25	J/mol×K	423.14	Joback Method
cpg	248.17	J/mol×K	449.29	Joback Method
cpg	256.50	J/mol×K	475.44	Joback Method
cpg	264.27	J/mol×K	501.60	Joback Method
cpg	271.48	J/mol×K	527.75	Joback Method
cpg	278.19	J/mol×K	553.90	Joback Method

cpg	284.40	J/mol×K	580.05	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C685278&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

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
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume