N,N,N',N'-Tetraacetylethylenediamine

Other names:	Tetracetylethylenediamine
	Acetamide, N,N'-1,2-ethanediylbis[N-acetyl-
	N,N'-Ethylenebis(N-acetylacetamide)
Inchi:	InChI=1S/C10H16N2O4/c1-7(13)11(8(2)14)5-6-12(9(3)15)10(4)16/h5-6H2,1-4H3
InchiKey:	BGRWYDHXPHLNKA-UHFFFAOYSA-N
Formula:	C10H16N2O4
SMILES:	CC(=O)N(CCN(C(C)=O)C(C)=O)C(C)=O
Mol. weight [g/mol]:	228.25
CAS:	10543-57-4

Physical Properties

Property code	Value	Unit	Source
gf	-260.80	kJ/mol	Joback Method
hf	-564.99	kJ/mol	Joback Method
hfus	34.09	kJ/mol	Joback Method
hvap	68.92	kJ/mol	Joback Method
log10ws	-0.25		Crippen Method
logp	-0.224		Crippen Method
mcvol	178.000	ml/mol	McGowan Method
pc	2684.64	kPa	Joback Method
tb	668.56	K	Joback Method
tc	861.77	K	Joback Method
tf	467.12	K	Joback Method
vc	0.655	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	474.39	J/mol×K	668.56	Joback Method
cpg	486.54	J/mol×K	700.76	Joback Method
cpg	497.94	J/mol×K	732.96	Joback Method
cpg	508.62	J/mol×K	765.16	Joback Method
cpg	518.60	J/mol×K	797.37	Joback Method
cpg	527.92	J/mol×K	829.57	Joback Method

cpg	536.61	J/mol×K	861.77	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C10543574&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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume