Guanidine, N,N-dimethyl-

Other names:	Guanidine, 1,1-dimethyl-
	Asym-Dimethylguanidine
	N,N-Dimethylguanidine
	N1,N1-Dimethylguanidine
	1,1-Dimethylguanidine
Inchi:	InChI=1S/C3H9N3/c1-6(2)3(4)5/h1-2H3,(H3,4,5)
InchiKey:	SWSQBOPZIKWTGO-UHFFFAOYSA-N
Formula:	C3H9N3
SMILES:	CN(C)C(=N)N
Mol. weight [g/mol]:	87.12
CAS:	6145-42-2

Physical Properties

Property code	Value	Unit	Source
gf	355.21	kJ/mol	Joback Method
hf	194.40	kJ/mol	Joback Method
hvap	47.04	kJ/mol	Joback Method
ie	8.18 ± 0.05	eV	NIST Webbook
log10ws	-0.99		Crippen Method
logp	-0.559		Crippen Method
mcvol	78.770	ml/mol	McGowan Method
tb	437.35	K	Joback Method
tf	308.08	K	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	159.41	J/mol×K	437.35	Joback Method
cpg	28.80	J/mol×K	100.12	Joback Method
cpg	28.80	J/mol×K	100.12	Joback Method
cpg	28.80	J/mol×K	100.12	Joback Method
cpg	28.80	J/mol×K	100.12	Joback Method
cpg	28.80	J/mol×K	100.12	Joback Method
cpg	28.80	J/mol×K	100.12	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C6145422&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
hvap:	Enthalpy of vaporization at standard conditions
ie:	Ionization energy
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
tb:	Normal Boiling Point Temperature
tf:	Normal melting (fusion) point

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