Diaziridine,3,3-dimethyl-

Other names: 3,3-Dimethyldiaziridine
Inchi: InChI=1S/C3H8N2/c1-3(2)4-5-3/h4-5H,1-2H3
InchiKey: YIOCAJQMPUYWMT-UHFFFAOYSA-N
Formula: C3H8N2
SMILES: CC1(C)NN1
Mol. weight [g/mol]: 72.11
CAS: 4901-76-2

Physical Properties

Property code	Value	Unit	Source
gf	205.06	kJ/mol	Joback Method
hf	58.41	kJ/mol	Joback Method
hfus	14.54	kJ/mol	Joback Method
hvap	34.55	kJ/mol	Joback Method
ie	9.90	eV	NIST Webbook
log10ws	-0.95		Crippen Method
logp	-0.170		Crippen Method
mcvol	62.230	ml/mol	McGowan Method
pc	6093.99	kPa	Joback Method
tb	372.12	K	Joback Method
tc	584.23	K	Joback Method
tf	375.47	K	Joback Method
vc	0.233	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	107.64	J/mol×K	372.12	Joback Method
cpg	117.05	J/mol×K	407.47	Joback Method
cpg	125.61	J/mol×K	442.82	Joback Method
cpg	133.44	J/mol×K	478.17	Joback Method
cpg	140.61	J/mol×K	513.52	Joback Method
cpg	147.23	J/mol×K	548.87	Joback Method
cpg	153.39	J/mol×K	584.23	Joback Method

Sources

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
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C4901762&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

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
ie:	Ionization energy
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