Hydrazine, N,N'-dimethyl-N,N'-dipentyl-

Inchi: InChI=1S/C12H28N2/c1-5-7-9-11-13(3)14(4)12-10-8-6-2/h5-12H2,1-4H3
InchiKey: QAZCFAXJJIICPD-UHFFFAOYSA-N
Formula: C12H28N2
SMILES: CCCCCN(C)N(C)CCCCC
Mol. weight [g/mol]: 200.36
CAS: 106376-59-4

Physical Properties

Property code	Value	Unit	Source
affp	977.20	kJ/mol	NIST Webbook
basg	946.40	kJ/mol	NIST Webbook
gf	271.72	kJ/mol	Joback Method
hf	-155.95	kJ/mol	Joback Method
hfus	32.88	kJ/mol	Joback Method
hvap	46.39	kJ/mol	Joback Method
ie	6.61 ± 0.05	eV	NIST Webbook
log10ws	-2.98		Crippen Method
logp	3.145		Crippen Method
mcvol	199.900	ml/mol	McGowan Method
pc	1774.35	kPa	Joback Method
tb	498.84	K	Joback Method
tc	657.51	K	Joback Method
tf	289.94	K	Joback Method
vc	0.744	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	477.88	J/mol×K	498.84	Joback Method
cpg	495.85	J/mol×K	525.29	Joback Method
cpg	513.07	J/mol×K	551.73	Joback Method
cpg	529.58	J/mol×K	578.18	Joback Method
cpg	545.39	J/mol×K	604.62	Joback Method
cpg	560.53	J/mol×K	631.07	Joback Method

cpg	575.03	J/mol×K	657.51	Joback Method

Sources

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
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C106376594&Units=SI

Legend

affp:	Proton affinity
basg:	Gas basicity
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