

Piperidine, 4,4'-(1,3-propanediyl)bis-

Other names:	Piperidine, 4,4'-trimethylenedi- DI-PIP 1,3-Bis(4-Piperidyl)propane 1,3-Di-4-piperidylpropane 4,4'-(1,3-Propanediyl)bis[piperidine] 4,4'-Trimethylenedipiperidine
Inchi:	InChI=1S/C13H26N2/c1(2-12-4-8-14-9-5-12)3-13-6-10-15-11-7-13/h12-15H,1-11H2
InchiKey:	OXEZLYIDQPBCBB-UHFFFAOYSA-N
Formula:	C13H26N2
SMILES:	C(CC1CCNCC1)CC1CCNCC1
Mol. weight [g/mol]:	210.36
CAS:	16898-52-5

Physical Properties

Property code	Value	Unit	Source
gf	282.90	kJ/mol	Joback Method
hf	-127.39	kJ/mol	Joback Method
hfus	32.28	kJ/mol	Joback Method
hvap	58.91	kJ/mol	Joback Method
log10ws	-2.95		Crippen Method
logp	2.156		Crippen Method
mcvol	192.270	ml/mol	McGowan Method
pc	2485.07	kPa	Joback Method
tb	633.04	K	Joback Method
tc	867.72	K	Joback Method
tf	461.09	K	Joback Method
vc	0.704	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	549.90	J/molxK	633.04	Joback Method
cpg	574.73	J/molxK	672.15	Joback Method
cpg	597.94	J/molxK	711.27	Joback Method

cpg	619.57	J/mol×K	750.38	Joback Method
cpg	639.65	J/mol×K	789.49	Joback Method
cpg	658.22	J/mol×K	828.61	Joback Method
cpg	675.31	J/mol×K	867.72	Joback Method

Sources

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=C16898525&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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

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