N,N,N',N',-Tetramethyl-2-butene-1,4-diamine

Other names: 2-Butene-1,4-diamine, N,N,N',N'-tetramethyl-
N,N,N',N'-tetramethylbut-2-enylenediamine
Inchi: InChI=1S/C8H18N2/c1-9(2)7-5-6-8-10(3)4/h5-6H,7-8H2,1-4H3/b6-5+
InchiKey: KUEDAAUECWBMLW-AATRIKPKSA-N
Formula: C8H18N2
SMILES: CN(C)CC=CCN(C)C
Mol. weight [g/mol]: 142.24
CAS: 4559-79-9

Physical Properties

Property code	Value	Unit	Source
gf	318.26	kJ/mol	Joback Method
hf	43.83	kJ/mol	Joback Method
hfus	22.72	kJ/mol	Joback Method
hvap	37.45	kJ/mol	Joback Method
log10ws	-0.16		Crippen Method
logp	0.666		Crippen Method
mcvol	139.240	ml/mol	McGowan Method
pc	2662.52	kPa	Joback Method
tb	411.48	K	Joback Method
tc	580.56	K	Joback Method
tf	239.78	K	Joback Method
vc	0.499	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	276.96	J/mol×K	411.48	Joback Method
cpg	291.91	J/mol×K	439.66	Joback Method
cpg	306.15	J/mol×K	467.84	Joback Method
cpg	319.71	J/mol×K	496.02	Joback Method
cpg	332.61	J/mol×K	524.20	Joback Method
cpg	344.87	J/mol×K	552.38	Joback Method
cpg	356.54	J/mol×K	580.56	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	444.70	K	98.00	NIST Webbook

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=C4559799&Units=SI

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
tbrp:	Boiling point at reduced pressure
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume