Cyclopentane, 2-ethyl-1,1-dimethyl-

Inchi: InChI=1S/C9H18/c1-4-8-6-5-7-9(8,2)3/h8H,4-7H2,1-3H3
InchiKey: RXPIHZJWAFCHEJ-UHFFFAOYSA-N
Formula: C9H18
SMILES: CCC1CCCC1(C)C
Mol. weight [g/mol]: 126.24
CAS: 54549-80-3

Physical Properties

Property code	Value	Unit	Source
gf	48.25	kJ/mol	Joback Method
hf	-173.71	kJ/mol	Joback Method
hfus	7.77	kJ/mol	Joback Method
hvap	34.42	kJ/mol	Joback Method
log10ws	-3.00		Crippen Method
logp	3.223		Crippen Method
mcvol	126.810	ml/mol	McGowan Method
pc	2799.47	kPa	Joback Method
rinpol	865.20		NIST Webbook
rinpol	860.80		NIST Webbook
tb	416.17	K	Joback Method
tc	615.40	K	Joback Method
tf	221.75	K	Joback Method
vc	0.477	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	256.68	J/mol×K	416.17	Joback Method
cpg	275.18	J/mol×K	449.38	Joback Method
cpg	292.53	J/mol×K	482.58	Joback Method
cpg	308.81	J/mol×K	515.79	Joback Method
cpg	324.12	J/mol×K	548.99	Joback Method
cpg	338.53	J/mol×K	582.20	Joback Method
cpg	352.15	J/mol×K	615.40	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=C54549803&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
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume