Cyclopentane, 3-ethyl-1,1-dimethyl-

Other names: 3-Ethyl-1,1-dimethylcyclopentane
Inchi: InChI=1S/C9H18/c1-4-8-5-6-9(2,3)7-8/h8H,4-7H2,1-3H3
InchiKey: WXHYOGXBESCULU-UHFFFAOYSA-N
Formula: C9H18
SMILES: CCC1CCC(C)(C)C1
Mol. weight [g/mol]: 126.24
CAS: 62016-61-9

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	825.00		NIST Webbook
rinpol	821.00		NIST Webbook
rinpol	824.00		NIST Webbook
rinpol	830.20		NIST Webbook
rinpol	827.00		NIST Webbook
rinpol	830.00		NIST Webbook
rinpol	821.00		NIST Webbook
rinpol	830.00		NIST Webbook
rinpol	828.60		NIST Webbook
rinpol	824.60		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

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C62016619&Units=SI
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

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