Cyclopentane, 1,1,3-trimethyl-3-(2-methyl-2-propenyl)-

Inchi: InChI=1S/C12H22/c1-10(2)8-12(5)7-6-11(3,4)9-12/h1,6-9H2,2-5H3
InchiKey: DXIUTXDTDSKHFH-UHFFFAOYSA-N
Formula: C12H22
SMILES: C=C(C)CC1(C)CCC(C)(C)C1
Mol. weight [g/mol]: 166.30
CAS: 74421-09-3

Physical Properties

Property code	Value	Unit	Source
gf	147.31	kJ/mol	Joback Method
hf	-104.75	kJ/mol	Joback Method
hfus	6.66	kJ/mol	Joback Method
hvap	39.36	kJ/mol	Joback Method
log10ws	-4.11		Crippen Method
logp	4.169		Crippen Method
mcvol	164.780	ml/mol	McGowan Method
pc	2298.11	kPa	Joback Method
tb	481.61	K	Joback Method
tc	690.75	K	Joback Method
tf	263.74	K	Joback Method
vc	0.625	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	377.00	J/mol×K	481.61	Joback Method
cpg	397.61	J/mol×K	516.47	Joback Method
cpg	416.73	J/mol×K	551.32	Joback Method
cpg	434.54	J/mol×K	586.18	Joback Method
cpg	451.24	J/mol×K	621.04	Joback Method
cpg	467.02	J/mol×K	655.89	Joback Method
cpg	482.06	J/mol×K	690.75	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C74421093&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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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