

1-Formyl-5-propylcyclopentene

Inchi:	InChI=1S/C9H14O/c1-2-4-8-5-3-6-9(8)7-10/h6-8H,2-5H2,1H3
InchiKey:	DZORRCITDABSTP-UHFFFAOYSA-N
Formula:	C9H14O
SMILES:	CCCC1CCC=C1C=O
Mol. weight [g/mol]:	138.21

Physical Properties

Property code	Value	Unit	Source
gf	-17.74	kJ/mol	Joback Method
hf	-207.88	kJ/mol	Joback Method
hfus	16.12	kJ/mol	Joback Method
hvap	43.56	kJ/mol	Joback Method
log10ws	-2.38		Crippen Method
logp	2.322		Crippen Method
mcvol	124.080	ml/mol	McGowan Method
pc	3062.55	kPa	Joback Method
rinpol	1135.00		NIST Webbook
rinpol	1130.00		NIST Webbook
rinpol	1132.00		NIST Webbook
tb	473.40	K	Joback Method
tc	673.82	K	Joback Method
tf	257.37	K	Joback Method
vc	0.483	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	268.31	J/molxK	473.40	Joback Method
cpg	282.82	J/molxK	506.80	Joback Method
cpg	296.58	J/molxK	540.21	Joback Method
cpg	309.61	J/molxK	573.61	Joback Method
cpg	321.95	J/molxK	607.01	Joback Method
cpg	333.62	J/molxK	640.42	Joback Method
cpg	344.63	J/molxK	673.82	Joback Method

dvisc	0.0027168	Paxs	257.37	Joback Method
dvisc	0.0015969	Paxs	293.38	Joback Method
dvisc	0.0010542	Paxs	329.38	Joback Method
dvisc	0.0007554	Paxs	365.38	Joback Method
dvisc	0.0005746	Paxs	401.39	Joback Method
dvisc	0.0004572	Paxs	437.39	Joback Method
dvisc	0.0003766	Paxs	473.40	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=R230876&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071

Legend

cpg:	Ideal gas heat capacity
dvisc:	Dynamic viscosity
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

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