1,3-Cyclopentadiene, 1-pentyl

Inchi: InChI=1S/C10H16/c1-2-3-4-7-10-8-5-6-9-10/h5-6,8H,2-4,7,9H2,1H3
InchiKey: RIUMFBQICCDHFC-UHFFFAOYSA-N
Formula: C10H16
SMILES: CCCCCC1=CC=CC1
Mol. weight [g/mol]: 136.23

Physical Properties

Property code	Value	Unit	Source
gf	127.87	kJ/mol	Joback Method
hf	-64.82	kJ/mol	Joback Method
hfus	16.57	kJ/mol	Joback Method
hvap	39.67	kJ/mol	Joback Method
log10ws	-3.61		Crippen Method
logp	3.453		Crippen Method
mcvol	132.300	ml/mol	McGowan Method
pc	2746.90	kPa	Joback Method
rinpol	1012.00		NIST Webbook
ripol	1215.00		NIST Webbook
tb	451.45	K	Joback Method
tc	646.28	K	Joback Method
tf	231.64	K	Joback Method
vc	0.509	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	272.03	J/mol×K	451.45	Joback Method
cpg	287.42	J/mol×K	483.92	Joback Method
cpg	302.00	J/mol×K	516.39	Joback Method
cpg	315.82	J/mol×K	548.86	Joback Method
cpg	328.90	J/mol×K	581.33	Joback Method
cpg	341.28	J/mol×K	613.81	Joback Method
cpg	352.99	J/mol×K	646.28	Joback Method
dvisc	0.0031734	Pa×s	231.64	Joback Method

dvisc	0.0015942	Pa×s	268.28	Joback Method
dvisc	0.0009449	Pa×s	304.91	Joback Method
dvisc	0.0006266	Pa×s	341.55	Joback Method
dvisc	0.0004499	Pa×s	378.18	Joback Method
dvisc	0.0003425	Pa×s	414.81	Joback Method
dvisc	0.0002725	Pa×s	451.45	Joback Method

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=R40760&Units=SI

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
ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume