Cyclopentene, 1-octyl-

Inchi: InChI=1S/C13H24/c1-2-3-4-5-6-7-10-13-11-8-9-12-13/h11H,2-10,12H2,1H3
InchiKey: HUTUSVKGTVCLRO-UHFFFAOYSA-N
Formula: C13H24
SMILES: CCCCCCCCC1=CCCC1
Mol. weight [g/mol]: 180.33
CAS: 52315-44-3

Physical Properties

Property code	Value	Unit	Source
gf	123.17	kJ/mol	Joback Method
hf	-184.52	kJ/mol	Joback Method
hfus	23.12	kJ/mol	Joback Method
hvap	46.05	kJ/mol	Joback Method
log10ws	-5.01		Crippen Method
logp	4.847		Crippen Method
mcvol	178.870	ml/mol	McGowan Method
pc	2007.30	kPa	Joback Method
rinpol	1328.00		NIST Webbook
tb	520.93	K	Joback Method
tc	707.42	K	Joback Method
tf	236.70 ± 0.50	K	NIST Webbook
vc	0.692	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	427.82	J/mol×K	520.93	Joback Method
cpg	512.66	J/mol×K	676.34	Joback Method
cpg	497.38	J/mol×K	645.26	Joback Method
cpg	481.29	J/mol×K	614.18	Joback Method
cpg	464.35	J/mol×K	583.09	Joback Method
cpg	446.54	J/mol×K	552.01	Joback Method
cpg	527.17	J/mol×K	707.42	Joback Method
dvisc	0.0002399	Pa×s	520.93	Joback Method

dvisc	0.0003127	Pa×s	478.22	Joback Method
dvisc	0.0004294	Pa×s	435.52	Joback Method
dvisc	0.0006316	Pa×s	392.81	Joback Method
dvisc	0.0010209	Pa×s	350.10	Joback Method
dvisc	0.0018855	Pa×s	307.40	Joback Method
dvisc	0.0042448	Pa×s	264.69	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=C52315443&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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume