Octane, 2-cyclohexyl-

Other names: 2-Cyclohexyloctane
Inchi: InChI=1S/C14H28/c1-3-4-5-7-10-13(2)14-11-8-6-9-12-14/h13-14H,3-12H2,1-2H3
InchiKey: IRKYBYIUHWZQGP-UHFFFAOYSA-N
Formula: C14H28
SMILES: CCCCCCC(C)C1CCCCC1
Mol. weight [g/mol]: 196.37
CAS: 2883-05-8

Physical Properties

Property code	Value	Unit	Source
gf	89.01	kJ/mol	Joback Method
hf	-283.25	kJ/mol	Joback Method
hfus	20.33	kJ/mol	Joback Method
hvap	46.80	kJ/mol	Joback Method
log10ws	-5.09		Crippen Method
logp	5.173		Crippen Method
mcvol	197.260	ml/mol	McGowan Method
pc	1812.32	kPa	Joback Method
tb	538.83	K	Joback Method
tc	730.39	K	Joback Method
tf	239.92	K	Joback Method
vc	0.747	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	497.64	J/mol×K	538.83	Joback Method
cpg	520.04	J/mol×K	570.76	Joback Method
cpg	541.34	J/mol×K	602.68	Joback Method
cpg	561.57	J/mol×K	634.61	Joback Method
cpg	580.76	J/mol×K	666.53	Joback Method
cpg	598.95	J/mol×K	698.46	Joback Method
cpg	616.17	J/mol×K	730.39	Joback Method
dvisc	0.0117614	Pa×s	239.92	Joback Method

dvisc	0.0032591	Pa×s	289.74	Joback Method
dvisc	0.0013161	Pa×s	339.56	Joback Method
dvisc	0.0006702	Pa×s	389.38	Joback Method
dvisc	0.0003978	Pa×s	439.19	Joback Method
dvisc	0.0002626	Pa×s	489.01	Joback Method
dvisc	0.0001872	Pa×s	538.83	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C2883058&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

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