Cyclopentene,1-hexyl-

Other names:	1-Hexyl-1-cyclopentene
	1-Hexylcyclopentene
Inchi:	InChI=1S/C11H20/c1-2-3-4-5-8-11-9-6-7-10-11/h9H,2-8,10H2,1H3
InchiKey:	ZLWJQGUXFYXEPE-UHFFFAOYSA-N
Formula:	C11H20
SMILES:	CCCCCCC1=CCCC1
Mol. weight [g/mol]:	152.28
CAS:	4291-99-0

Physical Properties

Property code	Value	Unit	Source
gf	106.33	kJ/mol	Joback Method
hf	-143.24	kJ/mol	Joback Method
hfus	17.94	kJ/mol	Joback Method
hvap	41.60	kJ/mol	Joback Method
ie	8.43 ± 0.01	eV	NIST Webbook
log10ws	-4.18		Crippen Method
logp	4.067		Crippen Method
mcvol	150.690	ml/mol	McGowan Method
pc	2402.92	kPa	Joback Method
rinpol	1129.00		NIST Webbook
rinpol	1137.00		NIST Webbook
rinpol	1135.00		NIST Webbook
ripol	1270.00		NIST Webbook
ripol	1244.00		NIST Webbook
ripol	1248.00		NIST Webbook
ripol	1252.00		NIST Webbook
ripol	1255.70		NIST Webbook
ripol	1259.30		NIST Webbook
ripol	1266.00		NIST Webbook
ripol	1266.00		NIST Webbook
ripol	1244.20		NIST Webbook
ripol	1266.00		NIST Webbook
ripol	1263.00		NIST Webbook
ripol	1217.00		NIST Webbook
ripol	1263.00		NIST Webbook
ripol	1263.00		NIST Webbook

ripol	1259.00		NIST Webbook
ripol	1256.00		NIST Webbook
ripol	1252.00		NIST Webbook
ripol	1255.00		NIST Webbook
ripol	1282.00		NIST Webbook
ripol	1248.20		NIST Webbook
ripol	1262.90		NIST Webbook
tb	475.17	K	Joback Method
tc	665.96	K	Joback Method
tf	242.15	K	Joback Method
vc	0.580	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	332.09	J/mol×K	475.17	Joback Method
cpg	349.47	J/mol×K	506.97	Joback Method
cpg	365.99	J/mol×K	538.77	Joback Method
cpg	381.69	J/mol×K	570.57	Joback Method
cpg	396.60	J/mol×K	602.37	Joback Method
cpg	410.74	J/mol×K	634.16	Joback Method
cpg	424.16	J/mol×K	665.96	Joback Method
dvisc	0.0042233	Pa×s	242.15	Joback Method
dvisc	0.0019457	Pa×s	280.99	Joback Method
dvisc	0.0010821	Pa×s	319.82	Joback Method
dvisc	0.0006833	Pa×s	358.66	Joback Method
dvisc	0.0004720	Pa×s	397.50	Joback Method
dvisc	0.0003483	Pa×s	436.33	Joback Method
dvisc	0.0002701	Pa×s	475.17	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.47586e+01
Coeff. B	-4.01340e+03
Coeff. C	-7.21500e+01

Temperature range (K), min.	349.49
Temperature range (K), max.	496.98

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=C4291990&Units=SI
The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure

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
ie:	Ionization energy
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
pvap:	Vapor 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