Cyclohexene, 1-pentyl-

Other names:	1-Pentyl-1-cyclohexene
	1-Pentylcyclohexene
	1-Pentylcyclohexene-1
Inchi:	InChI=1S/C11H20/c1-2-3-5-8-11-9-6-4-7-10-11/h9H,2-8,10H2,1H3
InchiKey:	IOTQTOFPEVQVPG-UHFFFAOYSA-N
Formula:	C11H20
SMILES:	CCCCCC1=CCCCC1
Mol. weight [g/mol]:	152.28
CAS:	15232-85-6

Physical Properties

Property code	Value	Unit	Source
gf	94.23	kJ/mol	Joback Method
hf	-149.40	kJ/mol	Joback Method
hfus	15.84	kJ/mol	Joback Method
hvap	41.77	kJ/mol	Joback Method
ie	8.37 ± 0.02	eV	NIST Webbook
log10ws	-4.18		Crippen Method
logp	4.067		Crippen Method
mcvol	150.690	ml/mol	McGowan Method
pc	2462.92	kPa	Joback Method
rinpol	1145.00		NIST Webbook
rinpol	1145.00		NIST Webbook
rinpol	1135.00		NIST Webbook
rinpol	1172.00		NIST Webbook
rinpol	1145.00		NIST Webbook
rinpol	1180.00		NIST Webbook
ripol	1321.00		NIST Webbook
ripol	1292.00		NIST Webbook
ripol	1282.90		NIST Webbook
ripol	1283.00		NIST Webbook
ripol	1292.00		NIST Webbook
ripol	1302.00		NIST Webbook
ripol	1306.00		NIST Webbook
ripol	1316.00		NIST Webbook
ripol	1297.00		NIST Webbook
ripol	1283.00		NIST Webbook

ripol	1277.00		NIST Webbook
ripol	1282.00		NIST Webbook
ripol	1287.00		NIST Webbook
ripol	1292.00		NIST Webbook
ripol	1297.00		NIST Webbook
ripol	1266.00		NIST Webbook
ripol	1272.00		NIST Webbook
ripol	1276.80		NIST Webbook
ripol	1282.00		NIST Webbook
ripol	1287.20		NIST Webbook
ripol	1292.00		NIST Webbook
ripol	1297.00		NIST Webbook
ripol	1265.80		NIST Webbook
ripol	1271.50		NIST Webbook
ripol	1292.00		NIST Webbook
ripol	1292.10		NIST Webbook
ripol	1287.20		NIST Webbook
tb	477.40 ± 4.00	K	NIST Webbook
tc	677.45	K	Joback Method
tf	238.63	K	Joback Method
vc	0.572	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	332.12	J/mol×K	479.44	Joback Method
cpg	350.49	J/mol×K	512.44	Joback Method
cpg	367.95	J/mol×K	545.44	Joback Method
cpg	384.52	J/mol×K	578.45	Joback Method
cpg	400.23	J/mol×K	611.45	Joback Method
cpg	415.12	J/mol×K	644.45	Joback Method
cpg	429.20	J/mol×K	677.45	Joback Method
dvisc	0.0061625	Pa×s	238.63	Joback Method
dvisc	0.0023882	Pa×s	278.76	Joback Method
dvisc	0.0011750	Pa×s	318.90	Joback Method
dvisc	0.0006774	Pa×s	359.03	Joback Method
dvisc	0.0004363	Pa×s	399.17	Joback Method
dvisc	0.0003045	Pa×s	439.30	Joback Method
dvisc	0.0002257	Pa×s	479.44	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=C15232856&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

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
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