Cyclopentene, 3-propyl-

Other names:	3-Propyl-1-cyclopentene
	3-Propylcyclopentene
	3-Propylcyclopentene-1
Inchi:	InChI=1S/C8H14/c1-2-5-8-6-3-4-7-8/h3,6,8H,2,4-5,7H2,1H3
InchiKey:	RBEROAUIKMEYDR-UHFFFAOYSA-N
Formula:	C8H14
SMILES:	CCCC1C=CCC1
Mol. weight [g/mol]:	110.20
CAS:	34067-75-9

Physical Properties

Property code	Value	Unit	Source
gf	82.99	kJ/mol	Joback Method
hf	-90.19	kJ/mol	Joback Method
hfus	11.63	kJ/mol	Joback Method
hvap	33.95	kJ/mol	Joback Method
ie	8.84 ± 0.02	eV	NIST Webbook
log10ws	-2.68		Crippen Method
logp	2.753		Crippen Method
mcvol	108.420	ml/mol	McGowan Method
pc	3191.93	kPa	Joback Method
rinpol	843.00		NIST Webbook
rinpol	816.00		NIST Webbook
rinpol	843.00		NIST Webbook
rinpol	813.00		NIST Webbook
rinpol	816.30		NIST Webbook
rinpol	846.00		NIST Webbook
rinpol	840.00		NIST Webbook
rinpol	818.00		NIST Webbook
rinpol	816.00		NIST Webbook
rinpol	813.00		NIST Webbook
rinpol	812.60		NIST Webbook
ripol	926.30		NIST Webbook
ripol	932.00		NIST Webbook
ripol	938.00		NIST Webbook
ripol	933.00		NIST Webbook
ripol	938.00		NIST Webbook

ripol	944.00		NIST Webbook
ripol	926.00		NIST Webbook
ripol	931.00		NIST Webbook
ripol	933.30		NIST Webbook
ripol	937.70		NIST Webbook
ripol	940.80		NIST Webbook
ripol	941.00		NIST Webbook
ripol	930.60		NIST Webbook
ripol	944.00		NIST Webbook
ripol	944.50		NIST Webbook
ripol	931.60		NIST Webbook
ripol	938.50		NIST Webbook
ripol	931.60		NIST Webbook
ripol	931.60		NIST Webbook
ripol	938.50		NIST Webbook
ripol	944.00		NIST Webbook
ripol	941.00		NIST Webbook
ripol	940.80		NIST Webbook
ripol	944.50		NIST Webbook
tb	399.10 ± 0.70	K	NIST Webbook
tb	399.05 ± 0.60	K	NIST Webbook
tb	399.10 ± 0.70	K	NIST Webbook
tc	591.58	K	Joback Method
tf	191.58	K	Joback Method
vc	0.410	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	201.22	J/mol×K	396.88	Joback Method
cpg	216.48	J/mol×K	429.33	Joback Method
cpg	230.98	J/mol×K	461.78	Joback Method
cpg	244.74	J/mol×K	494.23	Joback Method
cpg	257.80	J/mol×K	526.68	Joback Method
cpg	270.17	J/mol×K	559.13	Joback Method
cpg	281.88	J/mol×K	591.58	Joback Method
dvisc	0.0030941	Pa×s	191.58	Joback Method
dvisc	0.0015439	Pa×s	225.80	Joback Method
dvisc	0.0009251	Pa×s	260.01	Joback Method
dvisc	0.0006244	Pa×s	294.23	Joback Method
dvisc	0.0004574	Pa×s	328.45	Joback Method

dvisc	0.0003554	Pa×s	362.66	Joback Method
dvisc	0.0002884	Pa×s	396.88	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.39191e+01
Coeff. B	-3.17082e+03
Coeff. C	-5.81760e+01
Temperature range (K), min.	290.79
Temperature range (K), max.	426.55

Sources

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=C34067759&Units=SI
The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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