

1,3-Cyclopentadiene, 5-pentyl

Inchi:	InChI=1S/C10H16/c1-2-3-4-7-10-8-5-6-9-10/h5-6,8-10H,2-4,7H2,1H3
InchiKey:	UNJRVCIJPOEXNI-UHFFFAOYSA-N
Formula:	C10H16
SMILES:	CCCCC1C=CC=C1
Mol. weight [g/mol]:	136.23

Physical Properties

Property code	Value	Unit	Source
gf	129.79	kJ/mol	Joback Method
hf	-73.69	kJ/mol	Joback Method
hfus	18.04	kJ/mol	Joback Method
hvap	38.70	kJ/mol	Joback Method
log10ws	-3.37		Crippen Method
logp	3.309		Crippen Method
mvol	132.300	ml/mol	McGowan Method
pc	2695.80	kPa	Joback Method
rinpol	1029.00		NIST Webbook
tb	441.80	K	Joback Method
tc	634.91	K	Joback Method
tf	214.88	K	Joback Method
vc	0.508	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	270.96	J/molxK	441.80	Joback Method
cpg	287.11	J/molxK	473.99	Joback Method
cpg	302.43	J/molxK	506.17	Joback Method
cpg	316.95	J/molxK	538.36	Joback Method
cpg	330.70	J/molxK	570.54	Joback Method
cpg	343.72	J/molxK	602.73	Joback Method
cpg	356.02	J/molxK	634.91	Joback Method
dvisc	0.0029122	Paxs	214.88	Joback Method
dvisc	0.0014804	Paxs	252.70	Joback Method

dvisc	0.0008975	Paxs	290.52	Joback Method
dvisc	0.0006106	Paxs	328.34	Joback Method
dvisc	0.0004498	Paxs	366.16	Joback Method
dvisc	0.0003509	Paxs	403.98	Joback Method
dvisc	0.0002856	Paxs	441.80	Joback Method

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=R40948&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
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
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

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