Cyclopentene,3-pentyl-

Other names:	3-Pentylcyclopentene-1
	3-Pentyl-1-cyclopentene
Inchi:	InChI=1S/C10H18/c1-2-3-4-7-10-8-5-6-9-10/h5,8,10H,2-4,6-7,9H2,1H3
InchiKey:	GLIXSFLUBRAPLZ-UHFFFAOYSA-N
Formula:	C10H18
SMILES:	CCCCCC1C=CCC1
Mol. weight [g/mol]:	138.25
CAS:	37689-14-8

Physical Properties

Property code	Value	Unit	Source
gf	99.83	kJ/mol	Joback Method
hf	-131.47	kJ/mol	Joback Method
hfus	16.81	kJ/mol	Joback Method
hvap	38.40	kJ/mol	Joback Method
ie	8.84 ± 0.02	eV	NIST Webbook
log10ws	-3.52		Crippen Method
logp	3.533		Crippen Method
mcvol	136.600	ml/mol	McGowan Method
pc	2597.78	kPa	Joback Method
rinpol	1009.00		NIST Webbook
rinpol	1010.00		NIST Webbook
rinpol	1010.00		NIST Webbook
rinpol	1013.00		NIST Webbook
rinpol	1015.00		NIST Webbook
rinpol	1042.00		NIST Webbook
rinpol	1043.00		NIST Webbook
rinpol	1009.00		NIST Webbook
rinpol	1013.10		NIST Webbook
ripol	1158.00		NIST Webbook
ripol	1134.00		NIST Webbook
ripol	1139.80		NIST Webbook
ripol	1140.00		NIST Webbook
ripol	1144.00		NIST Webbook
ripol	1147.00		NIST Webbook
ripol	1125.40		NIST Webbook
ripol	1125.00		NIST Webbook

ripol	1133.00		NIST Webbook
ripol	1129.00		NIST Webbook
ripol	1132.00		NIST Webbook
ripol	1136.00		NIST Webbook
ripol	1140.00		NIST Webbook
ripol	1144.00		NIST Webbook
ripol	1121.00		NIST Webbook
ripol	1125.00		NIST Webbook
ripol	1128.90		NIST Webbook
ripol	1132.20		NIST Webbook
ripol	1136.00		NIST Webbook
ripol	1140.50		NIST Webbook
ripol	1143.60		NIST Webbook
ripol	1121.10		NIST Webbook
ripol	1125.00		NIST Webbook
ripol	1140.00		NIST Webbook
ripol	1134.00		NIST Webbook
ripol	1125.40		NIST Webbook
ripol	1139.80		NIST Webbook
tb	442.64	K	Joback Method
tc	633.85	K	Joback Method
tf	214.12	K	Joback Method
vc	0.522	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	285.55	J/mol×K	442.64	Joback Method
cpg	302.85	J/mol×K	474.51	Joback Method
cpg	319.30	J/mol×K	506.38	Joback Method
cpg	334.92	J/mol×K	538.25	Joback Method
cpg	349.76	J/mol×K	570.12	Joback Method
cpg	363.83	J/mol×K	601.98	Joback Method
cpg	377.16	J/mol×K	633.85	Joback Method
dvisc	0.0038763	Pa×s	214.12	Joback Method
dvisc	0.0018262	Pa×s	252.21	Joback Method
dvisc	0.0010482	Pa×s	290.29	Joback Method
dvisc	0.0006843	Pa×s	328.38	Joback Method
dvisc	0.0004882	Pa×s	366.47	Joback Method
dvisc	0.0003711	Pa×s	404.55	Joback Method
dvisc	0.0002958	Pa×s	442.64	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=C37689148&Units=SI
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
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

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