Acenaphthylene, dodecahydro-5-pentadecyl-

Other names:	5-n-Pentadecyl-(decahydroacenaphthylene)
	5-n-Pentadecyl-(dodecahydroacenaphthene)
	5-n-Pentadecyltricyclo(6.3.1.0(4,12))dodecane
	5-Pentadecyldodecahydroacenaphthalene
Inchi:	InChI=1S/C27H50/c1-2-3-4-5-6-7-8-9-10-11-12-13-14-16-23-19-20-25-22-21-24-17-15-18
InchiKey:	JSWHXZRXGIVGRL-UHFFFAOYSA-N
Formula:	C27H50
SMILES:	CCCCCCCCCCCCCCCC1CCC2CCC3CCCC1C32
Mol. weight [g/mol]:	374.69
CAS:	55282-69-4

Physical Properties

Property code	Value	Unit	Source
gf	306.99	kJ/mol	Joback Method
hf	-441.37	kJ/mol	Joback Method
hfus	55.93	kJ/mol	Joback Method
hvap	75.33	kJ/mol	Joback Method
log10ws	-9.60		Crippen Method
logp	9.320		Crippen Method
mcvol	358.710	ml/mol	McGowan Method
pc	859.48	kPa	Joback Method
tb	840.85	K	Joback Method
tc	1036.16	K	Joback Method
tf	428.83	K	Joback Method
vc	1.393	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1258.64	J/mol×K	840.85	Joback Method
cpg	1283.93	J/mol×K	873.40	Joback Method
cpg	1307.85	J/mol×K	905.95	Joback Method
cpg	1330.50	J/mol×K	938.50	Joback Method
cpg	1351.97	J/mol×K	971.06	Joback Method

cpg	1372.36	J/mol×K	1003.61	Joback Method
cpg	1391.77	J/mol×K	1036.16	Joback Method
dvisc	0.0032449	Pa×s	428.83	Joback Method
dvisc	0.0020348	Pa×s	497.50	Joback Method
dvisc	0.0014289	Pa×s	566.17	Joback Method
dvisc	0.0010831	Pa×s	634.84	Joback Method
dvisc	0.0008667	Pa×s	703.51	Joback Method
dvisc	0.0007215	Pa×s	772.18	Joback Method
dvisc	0.0006190	Pa×s	840.85	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=C55282694&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
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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