Cyclopentane, (2-decyldodecyl)-

Other names: Heneicosane, 11-(cyclopentylmethyl)-
11-(Cyclopentylmethyl)heneicosane
1-Cyclopentyl-2-n-decyldodecane
Inchi: InChI=1S/C27H54/c1-3-5-7-9-11-13-15-17-21-26(25-27-23-19-20-24-27)22-18-16-14-12-
InchiKey: BVCMEVKMWDECGG-UHFFFAOYSA-N
Formula: C27H54
SMILES: CCCCCCCCCCC(CCCCCCCCCC)CC1CCCC1
Mol. weight [g/mol]: 378.72
CAS: 6703-79-3

Physical Properties

Property code	Value	Unit	Source
gf	210.57	kJ/mol	Joback Method
hf	-545.41	kJ/mol	Joback Method
hfus	56.10	kJ/mol	Joback Method
hvap	75.56	kJ/mol	Joback Method
log10ws	-10.54		Crippen Method
logp	10.244		Crippen Method
mcvol	380.430	ml/mol	McGowan Method
pc	762.26	kPa	Joback Method
tb	832.00	K	Joback Method
tc	1019.48	K	Joback Method
tf	389.95	K	Joback Method
vc	1.482	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1278.33	J/mol×K	832.00	Joback Method
cpg	1302.95	J/mol×K	863.25	Joback Method
cpg	1326.26	J/mol×K	894.49	Joback Method
cpg	1348.32	J/mol×K	925.74	Joback Method
cpg	1369.20	J/mol×K	956.99	Joback Method
cpg	1388.96	J/mol×K	988.24	Joback Method

cpg	1407.66	J/mol×K	1019.48	Joback Method
dvisc	0.0023485	Pa×s	389.95	Joback Method
dvisc	0.0007499	Pa×s	463.62	Joback Method
dvisc	0.0003274	Pa×s	537.30	Joback Method
dvisc	0.0001746	Pa×s	610.97	Joback Method
dvisc	0.0001066	Pa×s	684.65	Joback Method
dvisc	0.0000716	Pa×s	758.33	Joback Method
dvisc	0.0000517	Pa×s	832.00	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=C6703793&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
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