Cyclopentane, 1-(2-decyldodecyl)-2,4-dimethyl-

Other names: 1,3-Dimethyl-4-(2'-n-decyldodecyl)cyclopentane
11-((2,4-Dimethylcyclopentyl)methyl)heneicosane
11-(2,4-dimethylcyclopentylmethyl)henicosane

Inchi: InChI=1S/C29H58/c1-5-7-9-11-13-15-17-19-21-28(25-29-24-26(3)23-27(29)4)22-20-18-1

InchiKey: JIBZZZWEWJGUOA-UHFFFAOYSA-N

Formula: C29H58

SMILES: CCCCCCCCCCC(CCCCCCCCCC)CC1CC(C)CC1C

Mol. weight [g/mol]: 406.77

CAS: 55429-26-0

Physical Properties

Property code	Value	Unit	Source
gf	211.99	kJ/mol	Joback Method
hf	-627.37	kJ/mol	Joback Method
hfus	63.42	kJ/mol	Joback Method
hvap	79.40	kJ/mol	Joback Method
log10ws	-10.89		Crippen Method
logp	10.736		Crippen Method
mcvol	408.610	ml/mol	McGowan Method
pc	664.26	kPa	Joback Method
tb	868.42	K	Joback Method
tc	1063.24	K	Joback Method
tf	404.01	K	Joback Method
vc	1.593	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1416.12	J/mol×K	868.42	Joback Method
cpg	1442.18	J/mol×K	900.89	Joback Method
cpg	1466.72	J/mol×K	933.36	Joback Method
cpg	1489.81	J/mol×K	965.83	Joback Method
cpg	1511.52	J/mol×K	998.30	Joback Method
cpg	1531.91	J/mol×K	1030.77	Joback Method

cpg	1551.04	J/mol×K	1063.24	Joback Method
dvisc	0.0017775	Pa×s	404.01	Joback Method
dvisc	0.0006587	Pa×s	481.41	Joback Method
dvisc	0.0003214	Pa×s	558.81	Joback Method
dvisc	0.0001867	Pa×s	636.21	Joback Method
dvisc	0.0001220	Pa×s	713.62	Joback Method
dvisc	0.0000867	Pa×s	791.02	Joback Method
dvisc	0.0000654	Pa×s	868.42	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C55429260&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
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

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