Cyclohexane, (2-decyldodecyl)-

Other names:	Heneicosane, 11-(cyclohexylmethyl)-
	1-Cyclohexyl-2-n-decyldodecane
	11-Cyclohexyl-2-(cycohexylmethyl)-pentadecane
	11-(Cyclohexylmethyl)heneicosane
Inchi:	InChI=1S/C28H56/c1-3-5-7-9-11-13-15-18-22-27(26-28-24-20-17-21-25-28)23-19-16-14-
InchiKey:	JLRNDLKAVDEGBL-UHFFFAOYSA-N
Formula:	C28H56
SMILES:	CCCCCCCCCCC(CCCCCCCCCC)CC1CCCCC1
Mol. weight [g/mol]:	392.74
CAS:	6704-00-3

Physical Properties

Property code	Value	Unit	Source
gf	206.89	kJ/mol	Joback Method
hf	-572.21	kJ/mol	Joback Method
hfus	56.59	kJ/mol	Joback Method
hvap	77.96	kJ/mol	Joback Method
log10ws	-10.95		Crippen Method
logp	10.635		Crippen Method
mcvol	394.520	ml/mol	McGowan Method
pc	733.23	kPa	Joback Method
tb	859.15	K	Joback Method
tc	1052.20	K	Joback Method
tf	268.95 ± 0.50	K	NIST Webbook
vc	1.530	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1480.18	J/mol×K	1052.20	Joback Method
cpg	1349.82	J/mol×K	859.15	Joback Method
cpg	1374.94	J/mol×K	891.32	Joback Method
cpg	1398.61	J/mol×K	923.50	Joback Method
cpg	1420.91	J/mol×K	955.67	Joback Method

cpg	1441.89	J/mol×K	987.85	Joback Method
cpg	1461.63	J/mol×K	1020.02	Joback Method
dvisc	0.0000310	Pa×s	859.15	Joback Method
dvisc	0.0020656	Pa×s	397.70	Joback Method
dvisc	0.0005820	Pa×s	474.61	Joback Method
dvisc	0.0002334	Pa×s	551.52	Joback Method
dvisc	0.0001171	Pa×s	628.42	Joback Method
dvisc	0.0000683	Pa×s	705.33	Joback Method
dvisc	0.0000443	Pa×s	782.24	Joback Method
hvapt	94.20	kJ/mol	518.50	NIST Webbook

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C6704003&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

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
hvapt: Enthalpy of vaporization at a given temperature
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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