Tridecane, 3-cyclohexyl-

Other names: (1-Ethylundecyl)cyclohexane
Cyclohexane, 1-ethylundecyl
Inchi: InChI=1S/C19H38/c1-3-5-6-7-8-9-10-12-15-18(4-2)19-16-13-11-14-17-19/h18-19H,3-17H
InchiKey: YXWVQAFTXZTRSX-UHFFFAOYSA-N
Formula: C19H38
SMILES: CCCCCCCCCCC(CC)C1CCCCC1
Mol. weight [g/mol]: 266.50
CAS: 13151-88-7

Physical Properties

Property code	Value	Unit	Source
gf	131.11	kJ/mol	Joback Method
hf	-386.45	kJ/mol	Joback Method
hfus	33.28	kJ/mol	Joback Method
hvap	57.93	kJ/mol	Joback Method
log10ws	-7.19		Crippen Method
logp	7.124		Crippen Method
mcvol	267.710	ml/mol	McGowan Method
pc	1249.49	kPa	Joback Method
rinpol	1921.00		NIST Webbook
rinpol	1921.00		NIST Webbook
tb	653.23	K	Joback Method
tc	835.39	K	Joback Method
tf	296.27	K	Joback Method
vc	1.026	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	779.15	J/mol×K	653.23	Joback Method
cpg	885.42	J/mol×K	805.03	Joback Method
cpg	866.35	J/mol×K	774.67	Joback Method
cpg	846.23	J/mol×K	744.31	Joback Method
cpg	825.01	J/mol×K	713.95	Joback Method

cpg	802.67	J/mol×K	683.59	Joback Method
cpg	903.46	J/mol×K	835.39	Joback Method
dvisc	0.0001079	Pa×s	653.23	Joback Method
dvisc	0.0001526	Pa×s	593.74	Joback Method
dvisc	0.0002333	Pa×s	534.24	Joback Method
dvisc	0.0003965	Pa×s	474.75	Joback Method
dvisc	0.0007846	Pa×s	415.26	Joback Method
dvisc	0.0019506	Pa×s	355.76	Joback Method
dvisc	0.0069912	Pa×s	296.27	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C13151887&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
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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume