Undecane, 3-cyclohexyl-

Other names: Cyclohexane, 1-ethylnonyl
Inchi: InChI=1S/C17H34/c1-3-5-6-7-8-10-13-16(4-2)17-14-11-9-12-15-17/h16-17H,3-15H2,1-2H
InchiKey: FXZJDDWIBPIHOM-UHFFFAOYSA-N
Formula: C17H34
SMILES: CCCCCCCCC(CC)C1CCCCC1
Mol. weight [g/mol]: 238.45
CAS: 13151-78-5

Physical Properties

Property code	Value	Unit	Source
gf	114.27	kJ/mol	Joback Method
hf	-345.17	kJ/mol	Joback Method
hfus	28.10	kJ/mol	Joback Method
hvap	53.48	kJ/mol	Joback Method
log10ws	-6.35		Crippen Method
logp	6.344		Crippen Method
mcvol	239.530	ml/mol	McGowan Method
pc	1438.07	kPa	Joback Method
rinpol	1723.00		NIST Webbook
tb	607.47	K	Joback Method
tc	792.62	K	Joback Method
tf	273.73	K	Joback Method
vc	0.914	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	662.62	J/mol×K	607.47	Joback Method
cpg	685.84	J/mol×K	638.33	Joback Method
cpg	707.92	J/mol×K	669.19	Joback Method
cpg	728.89	J/mol×K	700.05	Joback Method
cpg	748.78	J/mol×K	730.90	Joback Method
cpg	767.63	J/mol×K	761.76	Joback Method
cpg	785.47	J/mol×K	792.62	Joback Method

dvisc	0.0087760	Pa×s	273.73	Joback Method
dvisc	0.0024421	Pa×s	329.35	Joback Method
dvisc	0.0009835	Pa×s	384.98	Joback Method
dvisc	0.0004983	Pa×s	440.60	Joback Method
dvisc	0.0002941	Pa×s	496.22	Joback Method
dvisc	0.0001930	Pa×s	551.85	Joback Method
dvisc	0.0001368	Pa×s	607.47	Joback Method

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C13151785&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