

Undecane, 5-cyclohexyl-

Other names:	(1-Butylheptyl)cyclohexane Cyclohexane, 1-butylheptyl
Inchi:	InChI=1S/C17H34/c1-3-5-7-9-13-16(12-6-4-2)17-14-10-8-11-15-17/h16-17H,3-15H2,1-2H
InchiKey:	BYZLRRVDPKPOEP-UHFFFAOYSA-N
Formula:	C17H34
SMILES:	CCCCCCC(CCCC)C1CCCCC1
Mol. weight [g/mol]:	238.45
CAS:	13151-80-9

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
mvol	239.530	ml/mol	McGowan Method
pc	1438.07	kPa	Joback Method
rinpol	1671.00		NIST Webbook
rinpol	1671.00		NIST Webbook
tb	607.47	K	Joback Method
tc	792.62	K	Joback Method
tf	273.73	K	Joback Method
vc	0.914	m ³ /kmol	Joback Method

Temperature Dependent Properties

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

cpg	685.84	J/molxK	638.33	Joback Method
cpg	785.47	J/molxK	792.62	Joback Method
dvisc	0.0001368	Paxs	607.47	Joback Method
dvisc	0.0001930	Paxs	551.85	Joback Method
dvisc	0.0002941	Paxs	496.22	Joback Method
dvisc	0.0004983	Paxs	440.60	Joback Method
dvisc	0.0009835	Paxs	384.98	Joback Method
dvisc	0.0024421	Paxs	329.35	Joback Method
dvisc	0.0087760	Paxs	273.73	Joback Method

Sources

Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
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=C13151809&Units=SI

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

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