Dodecane, 4-cyclohexyl-

Other names: (1-Propylnonyl)cyclohexane
Cyclohexane, 1-propylnonyl
Inchi: InChI=1S/C18H36/c1-3-5-6-7-8-10-14-17(13-4-2)18-15-11-9-12-16-18/h17-18H,3-16H2,1
InchiKey: CZCIELPMZUTELM-UHFFFAOYSA-N
Formula: C18H36
SMILES: CCCCCCCCC(CCC)C1CCCCC1
Mol. weight [g/mol]: 252.48
CAS: 13151-84-3

Physical Properties

Property code	Value	Unit	Source
gf	122.69	kJ/mol	Joback Method
hf	-365.81	kJ/mol	Joback Method
hfus	30.69	kJ/mol	Joback Method
hvap	55.70	kJ/mol	Joback Method
log10ws	-6.77		Crippen Method
logp	6.734		Crippen Method
mcvol	253.620	ml/mol	McGowan Method
pc	1338.82	kPa	Joback Method
rinpol	1787.00		NIST Webbook
tb	630.35	K	Joback Method
tc	813.84	K	Joback Method
tf	285.00	K	Joback Method
vc	0.971	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	720.29	J/mol×K	630.35	Joback Method
cpg	743.68	J/mol×K	660.93	Joback Method
cpg	765.91	J/mol×K	691.51	Joback Method
cpg	787.01	J/mol×K	722.10	Joback Method
cpg	807.04	J/mol×K	752.68	Joback Method
cpg	826.01	J/mol×K	783.26	Joback Method

cpg	843.97	J/mol×K	813.84	Joback Method
dvisc	0.0078543	Pa×s	285.00	Joback Method
dvisc	0.0021885	Pa×s	342.56	Joback Method
dvisc	0.0008808	Pa×s	400.12	Joback Method
dvisc	0.0004457	Pa×s	457.68	Joback Method
dvisc	0.0002626	Pa×s	515.23	Joback Method
dvisc	0.0001721	Pa×s	572.79	Joback Method
dvisc	0.0001218	Pa×s	630.35	Joback Method

Sources

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
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C13151843&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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