cis-7-Octadecene

Other names: (Z)-7-octadecene
Inchi: InChI=1S/C18H36/c1-3-5-7-9-11-13-15-17-18-16-14-12-10-8-6-4-2/h13,15H,3-12,14,16-1
InchiKey: VBDYOHYDAONYJK-SQFISAMPSA-N
Formula: C18H36
SMILES: CCCCCCC=CCCCCCCCCCC
Mol. weight [g/mol]: 252.48

Physical Properties

Property code	Value	Unit	Source
gf	180.90	kJ/mol	Joback Method
hf	-297.63	kJ/mol	Joback Method
hfus	42.58	kJ/mol	Joback Method
hvap	55.62	kJ/mol	Joback Method
log10ws	-7.21		Crippen Method
logp	7.044		Crippen Method
mcvol	260.180	ml/mol	McGowan Method
pc	1194.00	kPa	Joback Method
rinpol	1782.00		NIST Webbook
rinpol	1765.30		NIST Webbook
rinpol	1764.60		NIST Webbook
ripol	1798.10		NIST Webbook
ripol	1798.00		NIST Webbook
ripol	1798.00		NIST Webbook
tb	615.40	K	Joback Method
tc	779.04	K	Joback Method
tf	287.54	K	Joback Method
vc	1.024	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	704.15	J/mol×K	615.40	Joback Method
cpg	723.88	J/mol×K	642.67	Joback Method
cpg	742.80	J/mol×K	669.95	Joback Method

cpg	760.91	J/mol×K	697.22	Joback Method
cpg	778.26	J/mol×K	724.50	Joback Method
cpg	794.87	J/mol×K	751.77	Joback Method
cpg	810.77	J/mol×K	779.04	Joback Method
dvisc	0.0041393	Pa×s	287.54	Joback Method
dvisc	0.0013772	Pa×s	342.18	Joback Method
dvisc	0.0006204	Pa×s	396.83	Joback Method
dvisc	0.0003390	Pa×s	451.47	Joback Method
dvisc	0.0002111	Pa×s	506.11	Joback Method
dvisc	0.0001441	Pa×s	560.76	Joback Method
dvisc	0.0001053	Pa×s	615.40	Joback Method

Sources

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=R146979&Units=SI
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

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
ripol: Polar retention indices
tb: Normal Boiling Point Temperature
tc: Critical Temperature
tf: Normal melting (fusion) point
vc: Critical Volume