trans-6-Octadecene

Other names: (E)-6-Octadecene
Inchi: InChI=1S/C18H36/c1-3-5-7-9-11-13-15-17-18-16-14-12-10-8-6-4-2/h11,13H,3-10,12,14-1
InchiKey: HPDAWHPYUNZJMN-ACCUITESSA-N
Formula: C18H36
SMILES: CCCCCC=CCCCCCCCCCCC
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	1775.40		NIST Webbook
rinpol	1775.90		NIST Webbook
rinpol	1775.40		NIST Webbook
ripol	1808.00		NIST Webbook
ripol	1807.60		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

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=R147170&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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