9,12-Octadecadiene

Inchi: InChI=1S/C18H34/c1-3-5-7-9-11-13-15-17-18-16-14-12-10-8-6-4-2/h11,13,17-18H,3-10,1
InchiKey: LWPSUELGZBFZHK-BCTRXSSUSA-N
Formula: C18H34
SMILES: CCCCCC=CCC=CCCCCCCCC
Mol. weight [g/mol]: 250.46
CAS: 20389-49-5

Physical Properties

Property code	Value	Unit	Source
gf	261.12	kJ/mol	Joback Method
hf	-180.41	kJ/mol	Joback Method
hfus	42.78	kJ/mol	Joback Method
hvap	55.58	kJ/mol	Joback Method
log10ws	-7.06		Crippen Method
logp	6.820		Crippen Method
mcvol	255.880	ml/mol	McGowan Method
pc	1238.09	kPa	Joback Method
tb	619.56	K	Joback Method
tc	788.38	K	Joback Method
tf	282.46	K	Joback Method
vc	1.004	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	684.53	J/mol×K	619.56	Joback Method
cpg	703.92	J/mol×K	647.70	Joback Method
cpg	722.46	J/mol×K	675.83	Joback Method
cpg	740.18	J/mol×K	703.97	Joback Method
cpg	757.11	J/mol×K	732.11	Joback Method
cpg	773.30	J/mol×K	760.24	Joback Method
cpg	788.79	J/mol×K	788.38	Joback Method
dvisc	0.0039210	Pa×s	282.46	Joback Method
dvisc	0.0012416	Pa×s	338.64	Joback Method

dvisc	0.0005454	Pa×s	394.83	Joback Method
dvisc	0.0002941	Pa×s	451.01	Joback Method
dvisc	0.0001818	Pa×s	507.19	Joback Method
dvisc	0.0001237	Pa×s	563.38	Joback Method
dvisc	0.0000903	Pa×s	619.56	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=C20389495&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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume