1,17-octadecadiene

Inchi: InChI=1S/C18H34/c1-3-5-7-9-11-13-15-17-18-16-14-12-10-8-6-4-2/h3-4H,1-2,5-18H2
InchiKey: GUYLTGCUWGGXHD-UHFFFAOYSA-N
Formula: C18H34
SMILES: C=CCCCCCCCCCCCCCCCC=C
Mol. weight [g/mol]: 250.46
CAS: 13560-93-5

Physical Properties

Property code	Value	Unit	Source
af	0.7380		Cheméo Relay (1.0)
gf	276.36	kJ/mol	Joback Method
hf	-226.65	kJ/mol	Cheméo Relay (1.0)
hfus	39.82	kJ/mol	Joback Method
hvap	89.26	kJ/mol	Cheméo Relay (1.0)
ie	9.38	eV	Cheméo Relay (1.0)
log10ws	-7.41		Cheméo Relay (1.0)
logp	6.820		Crippen Method
mcvol	255.880	ml/mol	McGowan Method
pc	1220.85	kPa	Joback Method
tb	579.07	K	Cheméo Relay (1.0)
tc	737.14	K	Cheméo Relay (1.0)
tf	290.67	K	Cheméo Relay (1.0)
vc	0.985	m3/kmol	Cheméo Relay (1.0)

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	679.10	J/mol×K	604.60	Joback Method
cpg	698.30	J/mol×K	631.70	Joback Method
cpg	716.70	J/mol×K	658.79	Joback Method
cpg	734.31	J/mol×K	685.89	Joback Method
cpg	751.17	J/mol×K	712.99	Joback Method
cpg	767.31	J/mol×K	740.09	Joback Method
cpg	782.76	J/mol×K	767.18	Joback Method

dvisc	0.0039225	Pa×s	289.10	Joback Method
dvisc	0.0014458	Pa×s	341.68	Joback Method
dvisc	0.0006954	Pa×s	394.27	Joback Method
dvisc	0.0003974	Pa×s	446.85	Joback Method
dvisc	0.0002555	Pa×s	499.43	Joback Method
dvisc	0.0001787	Pa×s	552.02	Joback Method
dvisc	0.0001330	Pa×s	604.60	Joback Method

Sources

Joback Method:	https://en.wikipedia.org/wiki/Joback_method
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Cheméo Relay (1.0):	
Cheméo Relay (1.0, beta):	
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C13560935&Units=SI

Legend

af:	Acentric Factor
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
ie:	Ionization energy
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

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