

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=CCCCCCCCCCCCCCC=C
Mol. weight [g/mol]:	250.46

Physical Properties

Property code	Value	Unit	Source
gf	276.36	kJ/mol	Joback Method
hf	-163.99	kJ/mol	Joback Method
hfus	39.82	kJ/mol	Joback Method
hvap	54.32	kJ/mol	Joback Method
log10ws	-7.06		Crippen Method
logp	6.820		Crippen Method
mvol	255.880	ml/mol	McGowan Method
pc	1220.85	kPa	Joback Method
rinpol	1782.00		NIST Webbook
rinpol	1782.00		NIST Webbook
tb	604.60	K	Joback Method
tc	767.18	K	Joback Method
tf	289.10	K	Joback Method
vc	1.006	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	679.10	J/molxK	604.60	Joback Method
cpg	698.30	J/molxK	631.70	Joback Method
cpg	716.70	J/molxK	658.79	Joback Method
cpg	734.31	J/molxK	685.89	Joback Method
cpg	751.17	J/molxK	712.99	Joback Method
cpg	767.31	J/molxK	740.09	Joback Method
cpg	782.76	J/molxK	767.18	Joback Method
dvisc	0.0039225	Paxs	289.10	Joback Method

dvisc	0.0014458	Paxs	341.68	Joback Method
dvisc	0.0006954	Paxs	394.27	Joback Method
dvisc	0.0003974	Paxs	446.85	Joback Method
dvisc	0.0002555	Paxs	499.43	Joback Method
dvisc	0.0001787	Paxs	552.02	Joback Method
dvisc	0.0001330	Paxs	604.60	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=R568097&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Joback Method:	https://en.wikipedia.org/wiki/Joback_method

Legend

cp_g:	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:	Log ₁₀ of Water solubility in mol/l
log_p:	Octanol/Water partition coefficient
m_{cvol}:	McGowan's characteristic volume
pc:	Critical Pressure
rin_{pol}:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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