9,17-Octadecadienal, (Z)-

Other names: 9,17-Octadecadienal
Inchi: InChI=1S/C18H32O/c1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19/h2,9-10,18H,1,3
InchiKey: RXORHYFDDNAOQS-KTKRTIGZSA-N
Formula: C18H32O
SMILES: C=CCCCCCCC=CCCCCCCCC=O
Mol. weight [g/mol]: 264.45
CAS: 56554-35-9

Physical Properties

Property code	Value	Unit	Source
gf	169.22	kJ/mol	Joback Method
hf	-257.78	kJ/mol	Joback Method
hfus	43.59	kJ/mol	Joback Method
hvap	61.67	kJ/mol	Joback Method
log10ws	-6.34		Crippen Method
logp	5.999		Crippen Method
mcvol	257.450	ml/mol	McGowan Method
pc	1295.79	kPa	Joback Method
rinpol	2297.00		NIST Webbook
rinpol	2297.00		NIST Webbook
ripol	2372.00		NIST Webbook
ripol	2372.00		NIST Webbook
tb	660.74	K	Joback Method
tc	831.50	K	Joback Method
tf	327.78	K	Joback Method
vc	1.022	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	712.29	J/mol×K	660.74	Joback Method
cpg	730.14	J/mol×K	689.20	Joback Method
cpg	747.17	J/mol×K	717.66	Joback Method
cpg	763.42	J/mol×K	746.12	Joback Method

cpg	778.92	J/mol×K	774.58	Joback Method
cpg	793.72	J/mol×K	803.04	Joback Method
cpg	807.84	J/mol×K	831.50	Joback Method
dvisc	0.0031667	Pa×s	327.78	Joback Method
dvisc	0.0012474	Pa×s	383.27	Joback Method
dvisc	0.0006220	Pa×s	438.77	Joback Method
dvisc	0.0003626	Pa×s	494.26	Joback Method
dvisc	0.0002357	Pa×s	549.75	Joback Method
dvisc	0.0001658	Pa×s	605.25	Joback Method
dvisc	0.0001237	Pa×s	660.74	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=C56554359&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