

(Z)-9-Hexadecenoic acid methyl ester

Inchi:	InChI=1S/C16H30O2/c1-3-4-5-6-7-8-9-10-11-12-13-14-15-16(17)18-2/h8-9H,3-7,10-15H
InchiKey:	MRBKPSJRLSTYOZ-HJWRWDBZSA-N
Formula:	C16H30O2
SMILES:	CCCCCCC=CCCCCCCC(=O)OC
Mol. weight [g/mol]:	254.41

Physical Properties

Property code	Value	Unit	Source
gf	-69.86	kJ/mol	Joback Method
hf	-501.15	kJ/mol	Joback Method
hfus	40.18	kJ/mol	Joback Method
hvap	60.32	kJ/mol	Joback Method
log10ws	-5.24		Crippen Method
logp	5.027		Crippen Method
mcvol	239.440	ml/mol	McGowan Method
pc	1417.57	kPa	Joback Method
rinpol	1895.00		NIST Webbook
rinpol	1908.00		NIST Webbook
rinpol	1890.00		NIST Webbook
rinpol	1888.00		NIST Webbook
ripol	2237.00		NIST Webbook
ripol	2236.00		NIST Webbook
tb	645.93	K	Joback Method
tc	818.34	K	Joback Method
tf	337.16	K	Joback Method
vc	0.935	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	655.12	J/molxK	645.93	Joback Method
cpg	672.59	J/molxK	674.67	Joback Method
cpg	689.29	J/molxK	703.40	Joback Method
cpg	705.23	J/molxK	732.14	Joback Method

cpg	720.44	J/molxK	760.87	Joback Method
cpg	734.94	J/molxK	789.61	Joback Method
cpg	748.76	J/molxK	818.34	Joback Method
dvisc	0.0022449	Paxs	337.16	Joback Method
dvisc	0.0009605	Paxs	388.62	Joback Method
dvisc	0.0005012	Paxs	440.08	Joback Method
dvisc	0.0002997	Paxs	491.55	Joback Method
dvisc	0.0001976	Paxs	543.01	Joback Method
dvisc	0.0001400	Paxs	594.47	Joback Method
dvisc	0.0001048	Paxs	645.93	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=R98828&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
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

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