Methyl myristoleate

Other names:	(Z)-9-Tetradecenoic acid, methyl ester
	Myristoleic acid methyl ester
	cis-9-tetradecenoic acid, methyl ester
	methyl cis-9-tetradecenoate
	myristoleic acid, methyl ester
Inchi:	InChI=1S/C15H28O2/c1-3-4-5-6-7-8-9-10-11-12-13-14-15(16)17-2/h6-7H,3-5,8-14H2,1-2
InchiKey:	RWIPSJUSVXDVPB-SREVYHEPSA-N
Formula:	C15H28O2
SMILES:	CCCCC=CCCCCCCCC(=O)OC
Mol. weight [g/mol]:	240.38
CAS:	56219-06-8

Physical Properties

Property code	Value	Unit	Source
chl	-9238.30 ± 1.50	kJ/mol	NIST Webbook
gf	-78.28	kJ/mol	Joback Method
hf	-480.51	kJ/mol	Joback Method
hfus	37.59	kJ/mol	Joback Method
hvap	87.10 ± 0.70	kJ/mol	NIST Webbook
log10ws	-4.82		Crippen Method
logp	4.636		Crippen Method
mcvol	225.350	ml/mol	McGowan Method
pc	1525.88	kPa	Joback Method
rinpol	1691.00		NIST Webbook
rinpol	1715.10		NIST Webbook
rinpol	1691.00		NIST Webbook
rinpol	1703.00		NIST Webbook
rinpol	1715.10		NIST Webbook
rinpol	1715.00		NIST Webbook
rinpol	1689.00		NIST Webbook
rinpol	1715.00		NIST Webbook
rinpol	1695.00		NIST Webbook
ripol	2052.00		NIST Webbook
ripol	2000.00		NIST Webbook
ripol	2052.00		NIST Webbook
tb	623.05	K	Joback Method
tc	796.03	K	Joback Method

tf	325.89	K	Joback Method
vc	0.879	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	691.85	J/mol×K	796.03	Joback Method
cpg	600.59	J/mol×K	623.05	Joback Method
cpg	617.60	J/mol×K	651.88	Joback Method
cpg	633.86	J/mol×K	680.71	Joback Method
cpg	649.40	J/mol×K	709.54	Joback Method
cpg	664.23	J/mol×K	738.37	Joback Method
cpg	678.37	J/mol×K	767.20	Joback Method
dvisc	0.0001174	Pa×s	623.05	Joback Method
dvisc	0.0024199	Pa×s	325.89	Joback Method
dvisc	0.0010480	Pa×s	375.42	Joback Method
dvisc	0.0005516	Pa×s	424.94	Joback Method
dvisc	0.0003319	Pa×s	474.47	Joback Method
dvisc	0.0002199	Pa×s	524.00	Joback Method
dvisc	0.0001564	Pa×s	573.52	Joback Method
hvapt	87.10	kJ/mol	298.15	the vaporization enthaplies and vapor pressures of a series of unstaurated fatty acid methyl esters by correlation gas chromatography

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=C56219068&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
the vaporization enthaplies and vapor pressures of a series of unstaurated fatty acid methyl esters by correlation gas chromatography:	https://www.doi.org/10.1016/j.tca.2007.02.008

Legend

chl:	Standard liquid enthalpy of combustion
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
hvapt:	Enthalpy of vaporization at a given temperature
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