

Oleic acid, 12,13-epoxy-, d(+)-, (z)-, methyl ester

Inchi:	InChI=1S/C19H34O3/c1-3-4-11-14-17-18(22-17)15-12-9-7-5-6-8-10-13-16-19(20)21-2/h
InchiKey:	JTSVQVYMBXVLFIXFXZXTDPSA-N
Formula:	C19H34O3
SMILES:	CCCCC1OC1CC=CCCCCCCCC(=O)OC
Mol. weight [g/mol]:	310.47

Physical Properties

Property code	Value	Unit	Source
gf	-77.68	kJ/mol	Joback Method
hf	-642.61	kJ/mol	Joback Method
hfus	55.14	kJ/mol	Joback Method
hvap	71.12	kJ/mol	Joback Method
log10ws	-5.70		Crippen Method
logp	5.184		Crippen Method
mcvol	276.720	ml/mol	McGowan Method
pc	1225.98	kPa	Joback Method
tb	743.59	K	Joback Method
tc	924.74	K	Joback Method
tf	411.24	K	Joback Method
vc	1.081	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	850.53	J/molxK	743.59	Joback Method
cpg	869.18	J/molxK	773.78	Joback Method
cpg	886.91	J/molxK	803.97	Joback Method
cpg	903.76	J/molxK	834.17	Joback Method
cpg	919.76	J/molxK	864.36	Joback Method
cpg	934.96	J/molxK	894.55	Joback Method
cpg	949.41	J/molxK	924.74	Joback Method
dvisc	0.0017948	Paxs	411.24	Joback Method
dvisc	0.0010349	Paxs	466.63	Joback Method
dvisc	0.0006707	Paxs	522.02	Joback Method

dvisc	0.0004724	Paxs	577.41	Joback Method
dvisc	0.0003538	Paxs	632.81	Joback Method
dvisc	0.0002776	Paxs	688.20	Joback Method
dvisc	0.0002258	Paxs	743.59	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=B6009693&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
hvac:	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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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