(7R,8S)-cis-7,8-epoxy-2-methyloctadec-17-ene

Other names: cis-7,8-epoxy-2-methyl-17-octadecene
Inchi: InChI=1S/C19H36O/c1-4-5-6-7-8-9-10-11-15-18-19(20-18)16-13-12-14-17(2)3/h4,17-19H
InchiKey: VEHBXHNRALNERE-UHFFFAOYSA-N
Formula: C19H36O
SMILES: C=CCCCCCCCCC1OC1CCCCC(C)C
Mol. weight [g/mol]: 280.49

Physical Properties

Property code	Value	Unit	Source
gf	161.42	kJ/mol	Joback Method
hf	-394.88	kJ/mol	Joback Method
hfus	47.35	kJ/mol	Joback Method
hvap	60.94	kJ/mol	Joback Method
log10ws	-6.59		Crippen Method
logp	6.277		Crippen Method
mcvol	269.280	ml/mol	McGowan Method
pc	1185.79	kPa	Joback Method
rinpol	2027.00		NIST Webbook
ripol	2304.00		NIST Webbook
tb	659.38	K	Joback Method
tc	830.99	K	Joback Method
tf	327.40	K	Joback Method
vc	1.052	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	785.77	J/mol×K	659.38	Joback Method
cpg	806.30	J/mol×K	687.98	Joback Method
cpg	825.88	J/mol×K	716.58	Joback Method
cpg	844.55	J/mol×K	745.18	Joback Method
cpg	862.36	J/mol×K	773.79	Joback Method
cpg	879.34	J/mol×K	802.39	Joback Method
cpg	895.54	J/mol×K	830.99	Joback Method

dvisc	0.0031939	Pa×s	327.40	Joback Method
dvisc	0.0016213	Pa×s	382.73	Joback Method
dvisc	0.0009768	Pa×s	438.06	Joback Method
dvisc	0.0006593	Pa×s	493.39	Joback Method
dvisc	0.0004817	Pa×s	548.72	Joback Method
dvisc	0.0003728	Pa×s	604.05	Joback Method
dvisc	0.0003012	Pa×s	659.38	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=R413566&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Joback Method:	https://en.wikipedia.org/wiki/Joback_method

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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