2-Methoxyethyl palmitate

Inchi: InChI=1S/C19H38O3/c1-3-4-5-6-7-8-9-10-11-12-13-14-15-16-19(20)22-18-17-21-2/h3-18
InchiKey: XSZLSYXBQSOQJE-UHFFFAOYSA-N
Formula: C19H38O3
SMILES: CCCCCCCCCCCCCCCC(=O)OCCOC
Mol. weight [g/mol]: 314.50
CAS: 111-07-9

Physical Properties

Property code	Value	Unit	Source
gf	-229.82	kJ/mol	Joback Method
hf	-812.51	kJ/mol	Joback Method
hfus	48.94	kJ/mol	Joback Method
hvap	69.45	kJ/mol	Joback Method
log10ws	-5.73		Crippen Method
logp	5.657		Crippen Method
mcvol	291.880	ml/mol	McGowan Method
pc	1101.54	kPa	Joback Method
rinpol	2176.00		NIST Webbook
rinpol	2176.00		NIST Webbook
tb	732.83	K	Joback Method
tc	904.33	K	Joback Method
tf	398.28	K	Joback Method
vc	1.141	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	881.25	J/mol×K	732.83	Joback Method
cpg	967.65	J/mol×K	875.75	Joback Method
cpg	952.11	J/mol×K	847.16	Joback Method
cpg	935.71	J/mol×K	818.58	Joback Method
cpg	918.45	J/mol×K	790.00	Joback Method
cpg	900.29	J/mol×K	761.41	Joback Method
cpg	982.35	J/mol×K	904.33	Joback Method

dvisc	0.0000637	Pa×s	732.83	Joback Method
dvisc	0.0000853	Pa×s	677.07	Joback Method
dvisc	0.0001202	Pa×s	621.31	Joback Method
dvisc	0.0001812	Pa×s	565.55	Joback Method
dvisc	0.0002991	Pa×s	509.80	Joback Method
dvisc	0.0005581	Pa×s	454.04	Joback Method
dvisc	0.0012403	Pa×s	398.28	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C111079&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
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772

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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume