Ethyl 20-hydroxy-3,6,9,12,15,18-hexaoxaicosan-1-oate

Inchi: InChI=1S/C16H32O9/c1-2-25-16(18)15-24-14-13-23-12-11-22-10-9-21-8-7-20-6-5-19-4-3

InchiKey: ZNXSBGRKYILDKF-UHFFFAOYSA-N

Formula: C16H32O9

SMILES: CCOC(=O)COCCOCCOCCOCCOCCOCCO

Mol. weight [g/mol]: 368.42

Physical Properties

Property code	Value	Unit	Source
gf	-916.90	kJ/mol	Joback Method
hf	-1563.92	kJ/mol	Joback Method
hfus	51.20	kJ/mol	Joback Method
hvap	91.51	kJ/mol	Joback Method
log10ws	0.83		Crippen Method
logp	-0.359		Crippen Method
mcvol	284.830	ml/mol	McGowan Method
pc	1353.63	kPa	Joback Method
rinpol	2649.90		NIST Webbook
rinpol	2649.90		NIST Webbook
tb	868.47	K	Joback Method
tc	1064.12	K	Joback Method
tf	536.44	K	Joback Method
vc	1.083	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	929.17	J/mol×K	868.47	Joback Method
cpg	944.35	J/mol×K	901.08	Joback Method
cpg	958.17	J/mol×K	933.69	Joback Method
cpg	970.62	J/mol×K	966.30	Joback Method
cpg	981.63	J/mol×K	998.91	Joback Method
cpg	991.17	J/mol×K	1031.52	Joback Method
cpg	999.20	J/mol×K	1064.12	Joback Method
dvisc	0.0000950	Pa×s	536.44	Joback Method

dvisc	0.0000423	Pa×s	591.78	Joback Method
dvisc	0.0000217	Pa×s	647.12	Joback Method
dvisc	0.0000123	Pa×s	702.45	Joback Method
dvisc	0.0000076	Pa×s	757.79	Joback Method
dvisc	0.0000050	Pa×s	813.13	Joback Method
dvisc	0.0000035	Pa×s	868.47	Joback Method

Sources

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
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=R578084&Units=SI
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

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