Carbonic acid, hexadecyl methyl ester

Other names: Methyl hexadecyl carbonate
Inchi: InChI=1S/C18H36O3/c1-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-21-18(19)20-2/h3-17H2
InchiKey: WZMKUTXQIPEPTH-UHFFFAOYSA-N
Formula: C18H36O3
SMILES: CCCCCCCCCCCCCCCCOC(=O)OC
Mol. weight [g/mol]: 300.48

Physical Properties

Property code	Value	Unit	Source
gf	-238.24	kJ/mol	Joback Method
hf	-791.87	kJ/mol	Joback Method
hfus	46.35	kJ/mol	Joback Method
hvap	67.23	kJ/mol	Joback Method
log10ws	-6.28		Crippen Method
logp	6.251		Crippen Method
mcvol	277.790	ml/mol	McGowan Method
pc	1175.24	kPa	Joback Method
tb	709.95	K	Joback Method
tc	879.78	K	Joback Method
tf	387.01	K	Joback Method
vc	1.085	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	821.97	J/mol×K	709.95	Joback Method
cpg	906.62	J/mol×K	851.47	Joback Method
cpg	891.34	J/mol×K	823.17	Joback Method
cpg	875.24	J/mol×K	794.86	Joback Method
cpg	858.32	J/mol×K	766.56	Joback Method
cpg	840.57	J/mol×K	738.25	Joback Method
cpg	921.11	J/mol×K	879.78	Joback Method
dvisc	0.0000729	Pa×s	709.95	Joback Method
dvisc	0.0000973	Pa×s	656.13	Joback Method

dvisc	0.0001367	Pa×s	602.30	Joback Method
dvisc	0.0002052	Pa×s	548.48	Joback Method
dvisc	0.0003367	Pa×s	494.66	Joback Method
dvisc	0.0006234	Pa×s	440.83	Joback Method
dvisc	0.0013700	Pa×s	387.01	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=U314627&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
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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume