Carbonic acid, (1R)-(-)-menthyl decyl ester

Inchi: InChI=1S/C21H40O3/c1-5-6-7-8-9-10-11-12-15-23-21(22)24-20-16-19(17(2)3)14-13-18(2
InchiKey: SHGKNWDDQRWFPQ-UHFFFAOYSA-N
Formula: C21H40O3
SMILES: CCCCCCCCCCOC(=O)OC1CC(C(C)C)CCC1C
Mol. weight [g/mol]: 340.54

Physical Properties

Property code	Value	Unit	Source
gf	-206.39	kJ/mol	Joback Method
hf	-845.43	kJ/mol	Joback Method
hfus	44.57	kJ/mol	Joback Method
hvap	73.33	kJ/mol	Joback Method
log10ws	-6.82		Crippen Method
logp	6.741		Crippen Method
mcvol	309.200	ml/mol	McGowan Method
pc	1069.36	kPa	Joback Method
rinpol	2285.00		NIST Webbook
rinpol	2285.00		NIST Webbook
tb	788.36	K	Joback Method
tc	977.48	K	Joback Method
tf	404.72	K	Joback Method
vc	1.179	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1006.55	J/mol×K	788.36	Joback Method
cpg	1102.31	J/mol×K	945.96	Joback Method
cpg	1085.78	J/mol×K	914.44	Joback Method
cpg	1067.95	J/mol×K	882.92	Joback Method
cpg	1048.81	J/mol×K	851.40	Joback Method
cpg	1028.35	J/mol×K	819.88	Joback Method
cpg	1117.57	J/mol×K	977.48	Joback Method
dvisc	0.0000739	Pa×s	788.36	Joback Method

dvisc	0.0000971	Pa×s	724.42	Joback Method
dvisc	0.0001347	Pa×s	660.48	Joback Method
dvisc	0.0002002	Pa×s	596.54	Joback Method
dvisc	0.0003275	Pa×s	532.60	Joback Method
dvisc	0.0006127	Pa×s	468.66	Joback Method
dvisc	0.0013969	Pa×s	404.72	Joback Method

Sources

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
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U392439&Units=SI

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