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

Inchi: InChI=1S/C18H34O3/c1-5-6-7-8-9-12-20-18(19)21-17-13-16(14(2)3)11-10-15(17)4/h14-1
InchiKey: NAEWNDFLNZKAME-UHFFFAOYSA-N
Formula: C18H34O3
SMILES: CCCCCCCOC(=O)OC1CC(C(C)C)CCC1C
Mol. weight [g/mol]: 298.46

Physical Properties

Property code	Value	Unit	Source
gf	-231.65	kJ/mol	Joback Method
hf	-783.51	kJ/mol	Joback Method
hfus	36.80	kJ/mol	Joback Method
hvap	66.65	kJ/mol	Joback Method
log10ws	-5.57		Crippen Method
logp	5.571		Crippen Method
mcvol	266.930	ml/mol	McGowan Method
pc	1303.29	kPa	Joback Method
rinpol	1960.00		NIST Webbook
rinpol	1960.00		NIST Webbook
tb	719.72	K	Joback Method
tc	908.95	K	Joback Method
tf	370.91	K	Joback Method
vc	1.010	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	823.23	J/mol×K	719.72	Joback Method
cpg	844.75	J/mol×K	751.26	Joback Method
cpg	865.07	J/mol×K	782.80	Joback Method
cpg	884.20	J/mol×K	814.34	Joback Method
cpg	902.13	J/mol×K	845.88	Joback Method
cpg	918.89	J/mol×K	877.42	Joback Method
cpg	934.47	J/mol×K	908.95	Joback Method
dvisc	0.0018011	Pa×s	370.91	Joback Method

dvisc	0.0008175	Pa×s	429.04	Joback Method
dvisc	0.0004480	Pa×s	487.18	Joback Method
dvisc	0.0002791	Pa×s	545.32	Joback Method
dvisc	0.0001905	Pa×s	603.45	Joback Method
dvisc	0.0001390	Pa×s	661.59	Joback Method
dvisc	0.0001068	Pa×s	719.72	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U392436&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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume