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

Inchi: InChI=1S/C22H42O3/c1-5-6-7-8-9-10-11-12-13-16-24-22(23)25-21-17-20(18(2)3)15-14-1
InchiKey: VCDCQWUJGITWQD-UHFFFAOYSA-N
Formula: C22H42O3
SMILES: CCCCCCCCCCCOC(=O)OC1CC(C(C)C)CCC1C
Mol. weight [g/mol]: 354.57

Physical Properties

Property code	Value	Unit	Source
gf	-197.97	kJ/mol	Joback Method
hf	-866.07	kJ/mol	Joback Method
hfus	47.16	kJ/mol	Joback Method
hvap	75.56	kJ/mol	Joback Method
log10ws	-7.24		Crippen Method
logp	7.131		Crippen Method
mcvol	323.290	ml/mol	McGowan Method
pc	1005.26	kPa	Joback Method
rinpol	2390.00		NIST Webbook
rinpol	2390.00		NIST Webbook
tb	811.24	K	Joback Method
tc	1001.53	K	Joback Method
tf	415.99	K	Joback Method
vc	1.234	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1069.21	J/mol×K	811.24	Joback Method
cpg	1091.10	J/mol×K	842.96	Joback Method
cpg	1111.59	J/mol×K	874.67	Joback Method
cpg	1130.71	J/mol×K	906.39	Joback Method
cpg	1148.47	J/mol×K	938.10	Joback Method
cpg	1164.89	J/mol×K	969.82	Joback Method
cpg	1179.98	J/mol×K	1001.53	Joback Method
dvisc	0.0012691	Pa×s	415.99	Joback Method

dvisc	0.0005509	Pa×s	481.87	Joback Method
dvisc	0.0002923	Pa×s	547.74	Joback Method
dvisc	0.0001777	Pa×s	613.62	Joback Method
dvisc	0.0001190	Pa×s	679.49	Joback Method
dvisc	0.0000855	Pa×s	745.37	Joback Method
dvisc	0.0000649	Pa×s	811.24	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U392440&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