Ethyl L-menthyl carbonate

Other names:	Carbonic acid, ethyl 5-methyl-2-(1-methylethyl)cyclohexyl ester, [1R-(1«alpha»,2«beta»,5«alpha»)]-ethyl menthyl carbonate
Inchi:	InChI=1S/C13H24O3/c1-5-15-13(14)16-12-8-10(4)6-7-11(12)9(2)3/h9-12H,5-8H2,1-4H3
InchiKey:	SYCXJIPGDBATKA-UHFFFAOYSA-N
Formula:	C13H24O3
SMILES:	CCOC(=O)OC1CC(C)CCC1C(C)C
Mol. weight [g/mol]:	228.33
CAS:	35106-15-1

Physical Properties

Property code	Value	Unit	Source
gf	-273.75	kJ/mol	Joback Method
hf	-680.31	kJ/mol	Joback Method
hfus	23.86	kJ/mol	Joback Method
hvap	55.52	kJ/mol	Joback Method
log10ws	-3.47		Crippen Method
logp	3.620		Crippen Method
mcvol	196.480	ml/mol	McGowan Method
pc	1906.90	kPa	Joback Method
tb	605.32	K	Joback Method
tc	803.88	K	Joback Method
tf	314.56	K	Joback Method
vc	0.731	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	538.44	J/mol×K	605.32	Joback Method
cpg	558.82	J/mol×K	638.41	Joback Method
cpg	578.20	J/mol×K	671.51	Joback Method
cpg	596.56	J/mol×K	704.60	Joback Method
cpg	613.91	J/mol×K	737.69	Joback Method
cpg	630.25	J/mol×K	770.79	Joback Method
cpg	645.55	J/mol×K	803.88	Joback Method

dvisc	0.0023708	Pa×s	314.56	Joback Method
dvisc	0.0011564	Pa×s	363.02	Joback Method
dvisc	0.0006680	Pa×s	411.48	Joback Method
dvisc	0.0004332	Pa×s	459.94	Joback Method
dvisc	0.0003051	Pa×s	508.40	Joback Method
dvisc	0.0002284	Pa×s	556.86	Joback Method
dvisc	0.0001791	Pa×s	605.32	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	403.00	K	1.90	NIST Webbook

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C35106151&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
tb: Normal Boiling Point Temperature
tbrp: Boiling point at reduced pressure

tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume