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

Inchi: InChI=1S/C28H54O3/c1-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-22-30-28(29)31-27-2

InchiKey: GGPUVTCNPODVDU-UHFFFAOYSA-N

Formula: C28H54O3

SMILES: CCCCCCCCCCCCCCCCCOC(=O)OC1CC(C(C)C)CCC1C

Mol. weight [g/mol]: 438.73

Physical Properties

Property code	Value	Unit	Source
gf	-147.45	kJ/mol	Joback Method
hf	-989.91	kJ/mol	Joback Method
hfus	62.70	kJ/mol	Joback Method
hvap	88.91	kJ/mol	Joback Method
log10ws	-9.75		Crippen Method
logp	9.472		Crippen Method
mcvol	407.830	ml/mol	McGowan Method
pc	718.76	kPa	Joback Method
rinpol	3033.00		NIST Webbook
rinpol	3033.00		NIST Webbook
tb	948.52	K	Joback Method
tc	1162.61	K	Joback Method
tf	483.61	K	Joback Method
vc	1.571	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1456.49	J/mol×K	948.52	Joback Method
cpg	1479.34	J/mol×K	984.20	Joback Method
cpg	1500.23	J/mol×K	1019.88	Joback Method
cpg	1519.19	J/mol×K	1055.57	Joback Method
cpg	1536.28	J/mol×K	1091.25	Joback Method
cpg	1551.53	J/mol×K	1126.93	Joback Method
cpg	1564.99	J/mol×K	1162.61	Joback Method
dvisc	0.0006518	Pa×s	483.61	Joback Method

dvisc	0.0002687	Pa×s	561.10	Joback Method
dvisc	0.0001373	Pa×s	638.58	Joback Method
dvisc	0.0000811	Pa×s	716.07	Joback Method
dvisc	0.0000531	Pa×s	793.55	Joback Method
dvisc	0.0000375	Pa×s	871.04	Joback Method
dvisc	0.0000280	Pa×s	948.52	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U392445&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
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772

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