Carbonic acid, 2-ethylhexyl pentadecyl ester

Inchi: InChI=1S/C24H48O3/c1-4-7-9-10-11-12-13-14-15-16-17-18-19-21-26-24(25)27-22-23(6-
InchiKey: SNBTXLPEEZOVJY-UHFFFAOYSA-N
Formula: C24H48O3
SMILES: CCCCCCCCCCCCCCCCOC(=O)OCC(CC)CCCC
Mol. weight [g/mol]: 384.64

Physical Properties

Property code	Value	Unit	Source
gf	-190.16	kJ/mol	Joback Method
hf	-920.99	kJ/mol	Joback Method
hfus	58.37	kJ/mol	Joback Method
hvap	80.20	kJ/mol	Joback Method
log10ws	-8.55		Crippen Method
logp	8.447		Crippen Method
mcvol	362.330	ml/mol	McGowan Method
pc	823.37	kPa	Joback Method
rinpol	2540.00		NIST Webbook
rinpol	2540.00		NIST Webbook
tb	846.79	K	Joback Method
tc	1036.77	K	Joback Method
tf	439.63	K	Joback Method
vc	1.415	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1191.40	J/mol×K	846.79	Joback Method
cpg	1212.95	J/mol×K	878.45	Joback Method
cpg	1233.21	J/mol×K	910.12	Joback Method
cpg	1252.24	J/mol×K	941.78	Joback Method
cpg	1270.05	J/mol×K	973.44	Joback Method
cpg	1286.67	J/mol×K	1005.11	Joback Method
cpg	1302.14	J/mol×K	1036.77	Joback Method
dvisc	0.0008462	Pa×s	439.63	Joback Method

dvisc	0.0003297	Pa×s	507.49	Joback Method
dvisc	0.0001605	Pa×s	575.35	Joback Method
dvisc	0.0000909	Pa×s	643.21	Joback Method
dvisc	0.0000574	Pa×s	711.07	Joback Method
dvisc	0.0000393	Pa×s	778.93	Joback Method
dvisc	0.0000286	Pa×s	846.79	Joback Method

Sources

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=U383142&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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