Carbonic acid, decyl pentadecyl ester

Inchi: InChI=1S/C26H52O3/c1-3-5-7-9-11-13-14-15-16-17-19-21-23-25-29-26(27)28-24-22-20-
InchiKey: JOILGOSOWJQVAK-UHFFFAOYSA-N
Formula: C26H52O3
SMILES: CCCCCCCCCCCCCCCCOC(=O)OCCCCCCCCCC
Mol. weight [g/mol]: 412.69

Physical Properties

Property code	Value	Unit	Source
gf	-170.88	kJ/mol	Joback Method
hf	-956.99	kJ/mol	Joback Method
hfus	67.07	kJ/mol	Joback Method
hvap	85.04	kJ/mol	Joback Method
log10ws	-9.63		Crippen Method
logp	9.372		Crippen Method
mcvol	390.510	ml/mol	McGowan Method
pc	736.42	kPa	Joback Method
rinpol	2811.00		NIST Webbook
rinpol	2811.00		NIST Webbook
tb	892.99	K	Joback Method
tc	1096.90	K	Joback Method
tf	477.17	K	Joback Method
vc	1.534	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1319.75	J/mol×K	892.99	Joback Method
cpg	1342.61	J/mol×K	926.98	Joback Method
cpg	1363.97	J/mol×K	960.96	Joback Method
cpg	1383.88	J/mol×K	994.95	Joback Method
cpg	1402.36	J/mol×K	1028.93	Joback Method
cpg	1419.47	J/mol×K	1062.92	Joback Method
cpg	1435.24	J/mol×K	1096.90	Joback Method
dvisc	0.0005490	Pa×s	477.17	Joback Method

dvisc	0.0002315	Pa×s	546.47	Joback Method
dvisc	0.0001186	Pa×s	615.78	Joback Method
dvisc	0.0000695	Pa×s	685.08	Joback Method
dvisc	0.0000450	Pa×s	754.38	Joback Method
dvisc	0.0000313	Pa×s	823.69	Joback Method
dvisc	0.0000230	Pa×s	892.99	Joback Method

Sources

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
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U383164&Units=SI

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