Fumaric acid, 2,2-dichloroethyl tridecyl ester

Inchi: InChI=1S/C19H32Cl2O4/c1-2-3-4-5-6-7-8-9-10-11-12-15-24-18(22)13-14-19(23)25-16-17
InchiKey: XEUKCOQEWZJXBR-BUHFOSPRSA-N
Formula: C19H32Cl2O4
SMILES: CCCCCCCCCCCCCOC(=O)C=CC(=O)OCC(Cl)Cl
Mol. weight [g/mol]: 395.36

Physical Properties

Property code	Value	Unit	Source
gf	-304.82	kJ/mol	Joback Method
hf	-844.63	kJ/mol	Joback Method
hfus	55.61	kJ/mol	Joback Method
hvap	84.54	kJ/mol	Joback Method
log10ws	-6.27		Crippen Method
logp	5.744		Crippen Method
mcvol	313.630	ml/mol	McGowan Method
pc	1138.27	kPa	Joback Method
rinpol	2632.00		NIST Webbook
rinpol	2632.00		NIST Webbook
tb	865.28	K	Joback Method
tc	1062.58	K	Joback Method
tf	487.97	K	Joback Method
vc	1.220	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	943.77	J/mol×K	865.28	Joback Method
cpg	1011.59	J/mol×K	1029.70	Joback Method
cpg	999.92	J/mol×K	996.82	Joback Method
cpg	987.34	J/mol×K	963.93	Joback Method
cpg	973.81	J/mol×K	931.05	Joback Method
cpg	959.30	J/mol×K	898.16	Joback Method
cpg	1022.38	J/mol×K	1062.58	Joback Method
dvisc	0.0000359	Pa×s	865.28	Joback Method

dvisc	0.0000479	Pa×s	802.39	Joback Method
dvisc	0.0000672	Pa×s	739.51	Joback Method
dvisc	0.0001004	Pa×s	676.62	Joback Method
dvisc	0.0001628	Pa×s	613.74	Joback Method
dvisc	0.0002948	Pa×s	550.86	Joback Method
dvisc	0.0006222	Pa×s	487.97	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=U348581&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