Fumaric acid, 2-ethylbutyl dec-2-yl ester

Inchi: InChI=1S/C20H36O4/c1-5-8-9-10-11-12-13-17(4)24-20(22)15-14-19(21)23-16-18(6-2)7-3
InchiKey: SRKCETOZCXNFJK-CCEZHUSRSA-N
Formula: C20H36O4
SMILES: CCCCCCCCC(C)OC(=O)C=CC(=O)OCC(CC)CC
Mol. weight [g/mol]: 340.50

Physical Properties

Property code	Value	Unit	Source
gf	-274.98	kJ/mol	Joback Method
hf	-839.07	kJ/mol	Joback Method
hfus	46.29	kJ/mol	Joback Method
hvap	77.61	kJ/mol	Joback Method
log10ws	-5.64		Crippen Method
logp	5.204		Crippen Method
mcvol	303.240	ml/mol	McGowan Method
pc	1127.59	kPa	Joback Method
rinpol	2243.00		NIST Webbook
rinpol	2243.00		NIST Webbook
tb	812.86	K	Joback Method
tc	1000.99	K	Joback Method
tf	424.40	K	Joback Method
vc	1.171	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	944.85	J/mol×K	812.86	Joback Method
cpg	962.71	J/mol×K	844.21	Joback Method
cpg	979.55	J/mol×K	875.57	Joback Method
cpg	995.38	J/mol×K	906.92	Joback Method
cpg	1010.22	J/mol×K	938.28	Joback Method
cpg	1024.11	J/mol×K	969.63	Joback Method
cpg	1037.07	J/mol×K	1000.99	Joback Method
dvisc	0.0011216	Pa×s	424.40	Joback Method

dvisc	0.0004425	Pa×s	489.14	Joback Method
dvisc	0.0002170	Pa×s	553.89	Joback Method
dvisc	0.0001235	Pa×s	618.63	Joback Method
dvisc	0.0000782	Pa×s	683.37	Joback Method
dvisc	0.0000536	Pa×s	748.12	Joback Method
dvisc	0.0000390	Pa×s	812.86	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U405637&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
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume