Fumaric acid, decyl pent-4-enyl ester

Inchi: InChI=1S/C19H32O4/c1-3-5-7-8-9-10-11-13-17-23-19(21)15-14-18(20)22-16-12-6-4-2/h4
InchiKey: NRJKRQBIPXJFTO-CCEZHUSRSA-N
Formula: C19H32O4
SMILES: C=CCCCOC(=O)C=CC(=O)OCCCCCCCCCC
Mol. weight [g/mol]: 324.45

Physical Properties

Property code	Value	Unit	Source
gf	-190.68	kJ/mol	Joback Method
hf	-682.44	kJ/mol	Joback Method
hfus	49.46	kJ/mol	Joback Method
hvap	75.49	kJ/mol	Joback Method
log10ws	-5.21		Crippen Method
logp	4.736		Crippen Method
mcvol	284.850	ml/mol	McGowan Method
pc	1225.98	kPa	Joback Method
rinpol	2284.00		NIST Webbook
rinpol	2284.00		NIST Webbook
tb	787.54	K	Joback Method
tc	972.17	K	Joback Method
tf	441.37	K	Joback Method
vc	1.109	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	857.70	J/mol×K	787.54	Joback Method
cpg	932.51	J/mol×K	941.40	Joback Method
cpg	919.28	J/mol×K	910.63	Joback Method
cpg	905.20	J/mol×K	879.86	Joback Method
cpg	890.27	J/mol×K	849.08	Joback Method
cpg	874.44	J/mol×K	818.31	Joback Method
cpg	944.94	J/mol×K	972.17	Joback Method
dvisc	0.0000568	Pa×s	787.54	Joback Method

dvisc	0.0000749	Pa×s	729.85	Joback Method
dvisc	0.0001034	Pa×s	672.15	Joback Method
dvisc	0.0001518	Pa×s	614.46	Joback Method
dvisc	0.0002412	Pa×s	556.76	Joback Method
dvisc	0.0004268	Pa×s	499.07	Joback Method
dvisc	0.0008763	Pa×s	441.37	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U348851&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