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

Inchi: InChI=1S/C24H30O4/c1-3-4-5-6-7-8-11-19(2)27-23(25)16-17-24(26)28-22-15-14-20-12-9
InchiKey: PHBKMCQTGKZJKC-WUKNDPDISA-N
Formula: C24H30O4
SMILES: CCCCCCCCC(C)OC(=O)C=CC(=O)Oc1ccc2ccccc2c1
Mol. weight [g/mol]: 382.49

Physical Properties

Property code	Value	Unit	Source
gf	-29.43	kJ/mol	Joback Method
hf	-500.22	kJ/mol	Joback Method
hfus	50.84	kJ/mol	Joback Method
hvap	91.48	kJ/mol	Joback Method
log10ws	-7.44		Crippen Method
logp	5.984		Crippen Method
mcvol	316.380	ml/mol	McGowan Method
pc	1267.35	kPa	Joback Method
rinpol	3002.00		NIST Webbook
rinpol	3002.00		NIST Webbook
tb	955.46	K	Joback Method
tc	1176.79	K	Joback Method
tf	556.12	K	Joback Method
vc	1.216	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1011.97	J/mol×K	955.46	Joback Method
cpg	1027.15	J/mol×K	992.35	Joback Method
cpg	1041.26	J/mol×K	1029.24	Joback Method
cpg	1054.39	J/mol×K	1066.13	Joback Method
cpg	1066.62	J/mol×K	1103.01	Joback Method
cpg	1078.04	J/mol×K	1139.90	Joback Method
cpg	1088.73	J/mol×K	1176.79	Joback Method
dvisc	0.0004862	Pa×s	556.12	Joback Method

dvisc	0.0002729	Pa×s	622.68	Joback Method
dvisc	0.0001712	Pa×s	689.23	Joback Method
dvisc	0.0001166	Pa×s	755.79	Joback Method
dvisc	0.0000845	Pa×s	822.35	Joback Method
dvisc	0.0000643	Pa×s	888.90	Joback Method
dvisc	0.0000508	Pa×s	955.46	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=U405833&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