Fumaric acid, di(naphth-1-yl) ester

Inchi: InChI=1S/C24H16O4/c25-23(27-21-13-5-9-17-7-1-3-11-19(17)21)15-16-24(26)28-22-14-
InchiKey: RFNWEPPOTCGGNE-FOCLMDBBSA-N
Formula: C24H16O4
SMILES: O=C(C=CC(=O)Oc1cccc2ccccc12)Oc1cccc2ccccc12
Mol. weight [g/mol]: 368.38

Physical Properties

Property code	Value	Unit	Source
gf	182.44	kJ/mol	Joback Method
hf	-78.81	kJ/mol	Joback Method
hfus	45.03	kJ/mol	Joback Method
hvap	96.44	kJ/mol	Joback Method
log10ws	-7.21		Crippen Method
logp	5.060		Crippen Method
mcvol	273.160	ml/mol	McGowan Method
pc	1964.82	kPa	Joback Method
rinpol	3272.00		NIST Webbook
rinpol	3272.00		NIST Webbook
tb	1006.54	K	Joback Method
tc	1265.54	K	Joback Method
tf	642.76	K	Joback Method
vc	1.036	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	819.18	J/mol×K	1006.54	Joback Method
cpg	831.34	J/mol×K	1049.71	Joback Method
cpg	842.82	J/mol×K	1092.87	Joback Method
cpg	853.79	J/mol×K	1136.04	Joback Method
cpg	864.43	J/mol×K	1179.21	Joback Method
cpg	874.90	J/mol×K	1222.37	Joback Method
cpg	885.39	J/mol×K	1265.54	Joback Method
dvisc	0.0005651	Pa×s	642.76	Joback Method

dvisc	0.0003960	Pa×s	703.39	Joback Method
dvisc	0.0002936	Pa×s	764.02	Joback Method
dvisc	0.0002274	Pa×s	824.65	Joback Method
dvisc	0.0001825	Pa×s	885.28	Joback Method
dvisc	0.0001506	Pa×s	945.91	Joback Method
dvisc	0.0001272	Pa×s	1006.54	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U405821&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