Glutaric acid, 2-ethylhexyl 1-naphthyl ester

Inchi: InChI=1S/C23H30O4/c1-3-5-10-18(4-2)17-26-22(24)15-9-16-23(25)27-21-14-8-12-19-11
InchiKey: OFOZANALOPYLMD-UHFFFAOYSA-N
Formula: C23H30O4
SMILES: CCCCC(CC)COC(=O)CCCC(=O)Oc1cccc2ccccc12
Mol. weight [g/mol]: 370.48

Physical Properties

Property code	Value	Unit	Source
gf	-118.07	kJ/mol	Joback Method
hf	-596.80	kJ/mol	Joback Method
hfus	48.05	kJ/mol	Joback Method
hvap	89.29	kJ/mol	Joback Method
log10ws	-6.82		Crippen Method
logp	5.675		Crippen Method
mcvol	306.590	ml/mol	McGowan Method
pc	1308.01	kPa	Joback Method
rinpol	2896.00		NIST Webbook
rinpol	2896.00		NIST Webbook
tb	928.42	K	Joback Method
tc	1144.91	K	Joback Method
tf	549.93	K	Joback Method
vc	1.179	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	980.12	J/mol×K	928.42	Joback Method
cpg	1045.12	J/mol×K	1108.83	Joback Method
cpg	1034.21	J/mol×K	1072.75	Joback Method
cpg	1022.31	J/mol×K	1036.67	Joback Method
cpg	1009.37	J/mol×K	1000.58	Joback Method
cpg	995.32	J/mol×K	964.50	Joback Method
cpg	1055.12	J/mol×K	1144.91	Joback Method
dvisc	0.0000665	Pa×s	928.42	Joback Method

dvisc	0.0000837	Pa×s	865.34	Joback Method
dvisc	0.0001093	Pa×s	802.26	Joback Method
dvisc	0.0001493	Pa×s	739.17	Joback Method
dvisc	0.0002163	Pa×s	676.09	Joback Method
dvisc	0.0003381	Pa×s	613.01	Joback Method
dvisc	0.0005856	Pa×s	549.93	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U390316&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