Glutaric acid, butyl 1-naphthyl ester

Inchi: InChI=1S/C19H22O4/c1-2-3-14-22-18(20)12-7-13-19(21)23-17-11-6-9-15-8-4-5-10-16(15
InchiKey: MNPLRQCMGWNFGX-UHFFFAOYSA-N
Formula: C19H22O4
SMILES: CCCCOC(=O)CCCC(=O)Oc1cccc2ccccc12
Mol. weight [g/mol]: 314.38

Physical Properties

Property code	Value	Unit	Source
gf	-149.31	kJ/mol	Joback Method
hf	-508.96	kJ/mol	Joback Method
hfus	41.21	kJ/mol	Joback Method
hvap	80.78	kJ/mol	Joback Method
log10ws	-5.38		Crippen Method
logp	4.259		Crippen Method
mcvol	250.230	ml/mol	McGowan Method
pc	1752.14	kPa	Joback Method
rinpol	2595.00		NIST Webbook
tb	837.34	K	Joback Method
tc	1052.26	K	Joback Method
tf	519.85	K	Joback Method
vc	0.962	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	745.47	J/mol×K	837.34	Joback Method
cpg	759.76	J/mol×K	873.16	Joback Method
cpg	773.00	J/mol×K	908.98	Joback Method
cpg	785.24	J/mol×K	944.80	Joback Method
cpg	796.52	J/mol×K	980.62	Joback Method
cpg	806.90	J/mol×K	1016.44	Joback Method
cpg	816.41	J/mol×K	1052.26	Joback Method
dvisc	0.0007727	Pa×s	519.85	Joback Method
dvisc	0.0004937	Pa×s	572.76	Joback Method

dvisc	0.0003403	Pa×s	625.68	Joback Method
dvisc	0.0002485	Pa×s	678.60	Joback Method
dvisc	0.0001900	Pa×s	731.51	Joback Method
dvisc	0.0001506	Pa×s	784.42	Joback Method
dvisc	0.0001229	Pa×s	837.34	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=U358765&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