Glutaric acid, 1-cyclopentylethyl naphth-2-ylmethyl ester

Inchi: InChI=1S/C23H28O4/c1-17(19-7-2-3-8-19)27-23(25)12-6-11-22(24)26-16-18-13-14-20-9

InchiKey: DUOIMAUZCWTXHU-UHFFFAOYSA-N

Formula: C23H28O4

SMILES: CC(OC(=O)CCCC(=O)OCc1ccc2ccccc2c1)C1CCCC1

Mol. weight [g/mol]: 368.47

Physical Properties

Property code	Value	Unit	Source
gf	-81.52	kJ/mol	Joback Method
hf	-536.32	kJ/mol	Joback Method
hfus	41.98	kJ/mol	Joback Method
hvap	89.55	kJ/mol	Joback Method
log10ws	-6.67		Crippen Method
logp	5.175		Crippen Method
mcvol	295.730	ml/mol	McGowan Method
pc	1496.51	kPa	Joback Method
rinpol	3029.00		NIST Webbook
rinpol	3029.00		NIST Webbook
tb	943.70	K	Joback Method
tc	1174.13	K	Joback Method
tf	560.83	K	Joback Method
vc	1.121	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	970.22	J/mol×K	943.70	Joback Method
cpg	985.69	J/mol×K	982.11	Joback Method
cpg	999.84	J/mol×K	1020.51	Joback Method
cpg	1012.76	J/mol×K	1058.92	Joback Method
cpg	1024.54	J/mol×K	1097.32	Joback Method
cpg	1035.26	J/mol×K	1135.73	Joback Method
cpg	1045.01	J/mol×K	1174.13	Joback Method
dvisc	0.0007951	Pa×s	560.83	Joback Method

dvisc	0.0004735	Pa×s	624.64	Joback Method
dvisc	0.0003104	Pa×s	688.45	Joback Method
dvisc	0.0002186	Pa×s	752.27	Joback Method
dvisc	0.0001626	Pa×s	816.08	Joback Method
dvisc	0.0001263	Pa×s	879.89	Joback Method
dvisc	0.0001015	Pa×s	943.70	Joback Method

Sources

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
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U405473&Units=SI

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