Glutaric acid, di(1-cyclopentylethyl) ester

Inchi: InChI=1S/C19H32O4/c1-14(16-8-3-4-9-16)22-18(20)12-7-13-19(21)23-15(2)17-10-5-6-11
InchiKey: ATTLREQGIYHTNN-UHFFFAOYSA-N
Formula: C19H32O4
SMILES: CC(OC(=O)CCCC(=O)OC(C)C1CCCC1)C1CCCC1
Mol. weight [g/mol]: 324.45

Physical Properties

Property code	Value	Unit	Source
gf	-290.52	kJ/mol	Joback Method
hf	-814.69	kJ/mol	Joback Method
hfus	31.36	kJ/mol	Joback Method
hvap	75.94	kJ/mol	Joback Method
log10ws	-5.03		Crippen Method
logp	4.401		Crippen Method
mcvol	271.730	ml/mol	McGowan Method
pc	1509.33	kPa	Joback Method
rinpol	2231.00		NIST Webbook
rinpol	2231.00		NIST Webbook
tb	816.38	K	Joback Method
tc	1028.10	K	Joback Method
tf	440.01	K	Joback Method
vc	1.018	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	895.15	J/mol×K	816.38	Joback Method
cpg	979.55	J/mol×K	992.81	Joback Method
cpg	965.43	J/mol×K	957.53	Joback Method
cpg	949.98	J/mol×K	922.24	Joback Method
cpg	933.14	J/mol×K	886.95	Joback Method
cpg	914.88	J/mol×K	851.67	Joback Method
cpg	992.37	J/mol×K	1028.10	Joback Method
dvisc	0.0001132	Pa×s	816.38	Joback Method

dvisc	0.0001496	Pa×s	753.65	Joback Method
dvisc	0.0002079	Pa×s	690.92	Joback Method
dvisc	0.0003086	Pa×s	628.19	Joback Method
dvisc	0.0005000	Pa×s	565.47	Joback Method
dvisc	0.0009140	Pa×s	502.74	Joback Method
dvisc	0.0019842	Pa×s	440.01	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=U405474&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