Glutaric acid, 1-cyclopentylethyl dec-2-yl ester

Inchi: InChI=1S/C22H40O4/c1-4-5-6-7-8-9-13-18(2)25-21(23)16-12-17-22(24)26-19(3)20-14-10
InchiKey: JLJSNSJHFUHRMS-UHFFFAOYSA-N
Formula: C22H40O4
SMILES: CCCCCCCCC(C)OC(=O)CCCC(=O)OC(C)C1CCCC1
Mol. weight [g/mol]: 368.55

Physical Properties

Property code	Value	Unit	Source
gf	-301.81	kJ/mol	Joback Method
hf	-937.09	kJ/mol	Joback Method
hfus	45.20	kJ/mol	Joback Method
hvap	82.36	kJ/mol	Joback Method
log10ws	-6.63		Crippen Method
logp	5.961		Crippen Method
mcvol	324.860	ml/mol	McGowan Method
pc	1080.64	kPa	Joback Method
rinpol	2424.00		NIST Webbook
rinpol	2424.00		NIST Webbook
tb	869.74	K	Joback Method
tc	1069.00	K	Joback Method
tf	462.92	K	Joback Method
vc	1.244	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1085.94	J/mol×K	869.74	Joback Method
cpg	1105.16	J/mol×K	902.95	Joback Method
cpg	1123.03	J/mol×K	936.16	Joback Method
cpg	1139.59	J/mol×K	969.37	Joback Method
cpg	1154.88	J/mol×K	1002.58	Joback Method
cpg	1168.93	J/mol×K	1035.79	Joback Method
cpg	1181.78	J/mol×K	1069.00	Joback Method
dvisc	0.0011467	Pa×s	462.92	Joback Method

dvisc	0.0004867	Pa×s	530.72	Joback Method
dvisc	0.0002509	Pa×s	598.53	Joback Method
dvisc	0.0001480	Pa×s	666.33	Joback Method
dvisc	0.0000962	Pa×s	734.13	Joback Method
dvisc	0.0000673	Pa×s	801.94	Joback Method
dvisc	0.0000498	Pa×s	869.74	Joback Method

Sources

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=U405467&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

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