Glutaric acid, cyclohexylmethyl 2-decyl ester

Inchi: InChI=1S/C22H40O4/c1-3-4-5-6-7-9-13-19(2)26-22(24)17-12-16-21(23)25-18-20-14-10-8
InchiKey: RMSSRGFEYAYWMW-UHFFFAOYSA-N
Formula: C22H40O4
SMILES: CCCCCCCCC(C)OC(=O)CCCC(=O)OCC1CCCCC1
Mol. weight [g/mol]: 368.55

Physical Properties

Property code	Value	Unit	Source
gf	-311.47	kJ/mol	Joback Method
hf	-937.97	kJ/mol	Joback Method
hfus	46.62	kJ/mol	Joback Method
hvap	82.92	kJ/mol	Joback Method
log10ws	-6.52		Crippen Method
logp	5.963		Crippen Method
mcvol	324.860	ml/mol	McGowan Method
pc	1092.82	kPa	Joback Method
rinpol	2527.00		NIST Webbook
rinpol	2527.00		NIST Webbook
tb	874.45	K	Joback Method
tc	1075.03	K	Joback Method
tf	474.40	K	Joback Method
vc	1.242	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1090.01	J/mol×K	874.45	Joback Method
cpg	1172.25	J/mol×K	1041.60	Joback Method
cpg	1158.53	J/mol×K	1008.17	Joback Method
cpg	1143.48	J/mol×K	974.74	Joback Method
cpg	1127.06	J/mol×K	941.31	Joback Method
cpg	1109.25	J/mol×K	907.88	Joback Method
cpg	1184.66	J/mol×K	1075.03	Joback Method
dvisc	0.0000375	Pa×s	874.45	Joback Method

dvisc	0.0000511	Pa×s	807.77	Joback Method
dvisc	0.0000736	Pa×s	741.10	Joback Method
dvisc	0.0001140	Pa×s	674.42	Joback Method
dvisc	0.0001944	Pa×s	607.75	Joback Method
dvisc	0.0003781	Pa×s	541.07	Joback Method
dvisc	0.0008866	Pa×s	474.40	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U393510&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
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772

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