Glutaric acid, di(oct-1-en-3-yl) ester

Inchi: InChI=1S/C21H36O4/c1-5-9-11-14-18(7-3)24-20(22)16-13-17-21(23)25-19(8-4)15-12-10
InchiKey: OIKCEYXOKVCELJ-UHFFFAOYSA-N
Formula: C21H36O4
SMILES: C=CC(CCCCC)OC(=O)CCCC(=O)OC(C=C)CCCCC
Mol. weight [g/mol]: 352.51

Physical Properties

Property code	Value	Unit	Source
gf	-171.10	kJ/mol	Joback Method
hf	-726.07	kJ/mol	Joback Method
hfus	46.11	kJ/mol	Joback Method
hvap	78.54	kJ/mol	Joback Method
log10ws	-6.27		Crippen Method
logp	5.513		Crippen Method
mcvol	313.030	ml/mol	McGowan Method
pc	1080.64	kPa	Joback Method
rinpol	2176.00		NIST Webbook
tb	824.94	K	Joback Method
tc	1013.79	K	Joback Method
tf	437.23	K	Joback Method
vc	1.210	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	976.43	J/mol×K	824.94	Joback Method
cpg	994.15	J/mol×K	856.42	Joback Method
cpg	1010.80	J/mol×K	887.89	Joback Method
cpg	1026.41	J/mol×K	919.37	Joback Method
cpg	1041.00	J/mol×K	950.84	Joback Method
cpg	1054.61	J/mol×K	982.32	Joback Method
cpg	1067.26	J/mol×K	1013.79	Joback Method
dvisc	0.0010788	Pa×s	437.23	Joback Method
dvisc	0.0004499	Pa×s	501.85	Joback Method

dvisc	0.0002291	Pa×s	566.47	Joback Method
dvisc	0.0001339	Pa×s	631.09	Joback Method
dvisc	0.0000865	Pa×s	695.70	Joback Method
dvisc	0.0000602	Pa×s	760.32	Joback Method
dvisc	0.0000443	Pa×s	824.94	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=U405360&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