Glutaric acid, oct-1-en-3-yl dec-2-yl ester

Inchi: InChI=1S/C23H42O4/c1-5-8-10-11-12-14-16-20(4)26-22(24)18-15-19-23(25)27-21(7-3)1
InchiKey: ACUSFSOJZSCPNC-UHFFFAOYSA-N
Formula: C23H42O4
SMILES: C=CC(CCCCC)OC(=O)CCCC(=O)OC(C)CCCCCCCC
Mol. weight [g/mol]: 382.58

Physical Properties

Property code	Value	Unit	Source
gf	-242.10	kJ/mol	Joback Method
hf	-892.78	kJ/mol	Joback Method
hfus	52.57	kJ/mol	Joback Method
hvap	83.66	kJ/mol	Joback Method
log10ws	-7.25		Crippen Method
logp	6.517		Crippen Method
mcvol	345.510	ml/mol	McGowan Method
pc	931.78	kPa	Joback Method
rinpol	2398.00		NIST Webbook
rinpol	2398.00		NIST Webbook
tb	874.02	K	Joback Method
tc	1070.15	K	Joback Method
tf	461.53	K	Joback Method
vc	1.341	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1126.98	J/mol×K	874.02	Joback Method
cpg	1146.01	J/mol×K	906.71	Joback Method
cpg	1163.78	J/mol×K	939.40	Joback Method
cpg	1180.33	J/mol×K	972.09	Joback Method
cpg	1195.70	J/mol×K	1004.77	Joback Method
cpg	1209.90	J/mol×K	1037.46	Joback Method
cpg	1222.98	J/mol×K	1070.15	Joback Method
dvisc	0.0008306	Pa×s	461.53	Joback Method

dvisc	0.0003359	Pa×s	530.28	Joback Method
dvisc	0.0001672	Pa×s	599.03	Joback Method
dvisc	0.0000961	Pa×s	667.77	Joback Method
dvisc	0.0000612	Pa×s	736.52	Joback Method
dvisc	0.0000421	Pa×s	805.27	Joback Method
dvisc	0.0000308	Pa×s	874.02	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=U405355&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