Glutaric acid, 2,2,3,3,4,4,4-heptafluorobutyl tetradecyl ester

Inchi: InChI=1S/C23H37F7O4/c1-2-3-4-5-6-7-8-9-10-11-12-13-17-33-19(31)15-14-16-20(32)34
InchiKey: GEXTXDRTSMVOSJ-UHFFFAOYSA-N
Formula: C23H37F7O4
SMILES: CCCCCCCCCCCCCCOC(=O)CCCC(=O)OCC(F)(F)C(F)(F)C(F)(F)F
Mol. weight [g/mol]: 510.53

Physical Properties

Property code	Value	Unit	Source
gf	-1680.21	kJ/mol	Joback Method
hf	-2406.67	kJ/mol	Joback Method
hfus	60.22	kJ/mol	Joback Method
hvap	75.50	kJ/mol	Joback Method
log10ws	-8.47		Crippen Method
logp	7.777		Crippen Method
mcvol	362.200	ml/mol	McGowan Method
pc	775.05	kPa	Joback Method
rinpol	2564.00		NIST Webbook
rinpol	2564.00		NIST Webbook
tb	863.42	K	Joback Method
tc	1061.79	K	Joback Method
tf	504.68	K	Joback Method
vc	1.464	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1205.88	J/mol×K	863.42	Joback Method
cpg	1224.36	J/mol×K	896.48	Joback Method
cpg	1241.65	J/mol×K	929.54	Joback Method
cpg	1257.81	J/mol×K	962.61	Joback Method
cpg	1272.95	J/mol×K	995.67	Joback Method
cpg	1287.13	J/mol×K	1028.73	Joback Method
cpg	1300.45	J/mol×K	1061.79	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=U377559&Units=SI

Legend

cpg:	Ideal gas heat capacity
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