Glutaric acid, 2,2,3,3-tetrafluoropropyl decyl ester

Inchi: InChI=1S/C18H30F4O4/c1-2-3-4-5-6-7-8-9-13-25-15(23)11-10-12-16(24)26-14-18(21,22
InchiKey: NOIUVXNTXPLUOO-UHFFFAOYSA-N
Formula: C18H30F4O4
SMILES: CCCCCCCCCCOC(=O)CCCC(=O)OCC(F)(F)C(F)F
Mol. weight [g/mol]: 386.42

Physical Properties

Property code	Value	Unit	Source
gf	-1146.00	kJ/mol	Joback Method
hf	-1702.92	kJ/mol	Joback Method
hfus	49.33	kJ/mol	Joback Method
hvap	69.02	kJ/mol	Joback Method
log10ws	-5.71		Crippen Method
logp	5.284		Crippen Method
mcvol	286.440	ml/mol	McGowan Method
pc	1105.94	kPa	Joback Method
rinpol	2035.00		NIST Webbook
rinpol	2035.00		NIST Webbook
tb	757.23	K	Joback Method
tc	929.43	K	Joback Method
tf	426.72	K	Joback Method
vc	1.147	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	881.95	J/mol×K	757.23	Joback Method
cpg	898.22	J/mol×K	785.93	Joback Method
cpg	913.61	J/mol×K	814.63	Joback Method
cpg	928.14	J/mol×K	843.33	Joback Method
cpg	941.83	J/mol×K	872.03	Joback Method
cpg	954.70	J/mol×K	900.73	Joback Method
cpg	966.79	J/mol×K	929.43	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U391547&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
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