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

Inchi: InChI=1S/C14H19F7O4/c1-2-3-4-8-24-10(22)6-5-7-11(23)25-9-12(15,16)13(17,18)14(19

InchiKey: GPAIPLZISAQGIU-UHFFFAOYSA-N

Formula: C14H19F7O4

SMILES: CCCCCOC(=O)CCCC(=O)OCC(F)(F)C(F)(F)C(F)(F)F

Mol. weight [g/mol]: 384.29

Physical Properties

Property code	Value	Unit	Source
gf	-1755.99	kJ/mol	Joback Method
hf	-2220.91	kJ/mol	Joback Method
hfus	36.91	kJ/mol	Joback Method
hvap	55.46	kJ/mol	Joback Method
log10ws	-4.70		Crippen Method
logp	4.266		Crippen Method
mcvol	235.390	ml/mol	McGowan Method
pc	1343.73	kPa	Joback Method
rinpol	1638.00		NIST Webbook
tb	657.50	K	Joback Method
tc	817.02	K	Joback Method
tf	403.25	K	Joback Method
vc	0.961	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	685.68	J/mol×K	657.50	Joback Method
cpg	699.13	J/mol×K	684.09	Joback Method
cpg	711.83	J/mol×K	710.67	Joback Method
cpg	723.81	J/mol×K	737.26	Joback Method
cpg	735.11	J/mol×K	763.85	Joback Method
cpg	745.75	J/mol×K	790.44	Joback Method
cpg	755.78	J/mol×K	817.02	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=U377549&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