Glutaric acid, 2,2,3,3,4,4,5,5-octafluoropentyl phenethyl ester

Inchi: InChI=1S/C18H18F8O4/c19-15(20)17(23,24)18(25,26)16(21,22)11-30-14(28)8-4-7-13(27

InchiKey: NLGSXFHCDYCTEH-UHFFFAOYSA-N

Formula: C18H18F8O4

SMILES: O=C(CCCC(=O)OCC(F)(F)C(F)(F)C(F)(F)C(F)(F)OCCc1ccccc1

Mol. weight [g/mol]: 450.32

Physical Properties

Property code	Value	Unit	Source
gf	-1807.15	kJ/mol	Joback Method
hf	-2268.33	kJ/mol	Joback Method
hfus	40.87	kJ/mol	Joback Method
hvap	65.44	kJ/mol	Joback Method
log10ws	-5.44		Crippen Method
logp	4.657		Crippen Method
mcvol	269.760	ml/mol	McGowan Method
pc	1259.27	kPa	Joback Method
rinpol	1992.00		NIST Webbook
rinpol	1992.00		NIST Webbook
tb	774.53	K	Joback Method
tc	955.52	K	Joback Method
tf	460.34	K	Joback Method
vc	1.089	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	828.56	J/mol×K	774.53	Joback Method
cpg	841.55	J/mol×K	804.70	Joback Method
cpg	853.61	J/mol×K	834.86	Joback Method
cpg	864.82	J/mol×K	865.03	Joback Method
cpg	875.23	J/mol×K	895.19	Joback Method
cpg	884.89	J/mol×K	925.36	Joback Method
cpg	893.87	J/mol×K	955.52	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U391785&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