Glutaric acid, 2-(cyclohexyl)ethyl 2,2,3,3,4,4,5,5-octafluoropentyl ester

Inchi: InChI=1S/C18H24F8O4/c19-15(20)17(23,24)18(25,26)16(21,22)11-30-14(28)8-4-7-13(27

InchiKey: ZUQQGZCWDBEBAU-UHFFFAOYSA-N

Formula: C18H24F8O4

SMILES: O=C(CCCC(=O)OCC(F)(F)C(F)(F)C(F)(F)C(F)F)OCCC1CCCCC1

Mol. weight [g/mol]: 456.37

Physical Properties

Property code	Value	Unit	Source
gf	-1895.11	kJ/mol	Joback Method
hf	-2450.54	kJ/mol	Joback Method
hfus	38.66	kJ/mol	Joback Method
hvap	63.59	kJ/mol	Joback Method
log10ws	-5.99		Crippen Method
logp	5.385		Crippen Method
mcvol	282.660	ml/mol	McGowan Method
pc	1153.78	kPa	Joback Method
rinpol	1951.00		NIST Webbook
rinpol	1951.00		NIST Webbook
tb	767.40	K	Joback Method
tc	945.51	K	Joback Method
tf	441.30	K	Joback Method
vc	1.129	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	911.38	J/mol×K	767.40	Joback Method
cpg	927.18	J/mol×K	797.09	Joback Method
cpg	941.92	J/mol×K	826.77	Joback Method
cpg	955.65	J/mol×K	856.46	Joback Method
cpg	968.43	J/mol×K	886.14	Joback Method
cpg	980.31	J/mol×K	915.83	Joback Method
cpg	991.35	J/mol×K	945.51	Joback Method

Sources

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=U405413&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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