Glutaric acid, 2,2,3,3,4,4,5,5-octafluoropentyl 3-methylbut-2-enyl ester

Inchi: InChI=1S/C15H18F8O4/c1-9(2)6-7-26-10(24)4-3-5-11(25)27-8-13(18,19)15(22,23)14(20

InchiKey: WEEZDRPNARTLNY-UHFFFAOYSA-N

Formula: C15H18F8O4

SMILES: CC(C)=CCOC(=O)CCCC(=O)OCC(F)(F)C(F)(F)C(F)(F)C(F)F

Mol. weight [g/mol]: 414.29

Physical Properties

Property code	Value	Unit	Source
gf	-1873.15	kJ/mol	Joback Method
hf	-2335.51	kJ/mol	Joback Method
hfus	37.95	kJ/mol	Joback Method
hvap	56.52	kJ/mol	Joback Method
log10ws	-4.94		Crippen Method
logp	4.380		Crippen Method
mcvol	246.950	ml/mol	McGowan Method
pc	1271.87	kPa	Joback Method
rinpol	1638.00		NIST Webbook
rinpol	1638.00		NIST Webbook
tb	683.25	K	Joback Method
tc	846.92	K	Joback Method
tf	381.07	K	Joback Method
vc	1.010	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	725.33	J/mol×K	683.25	Joback Method
cpg	738.54	J/mol×K	710.53	Joback Method
cpg	750.96	J/mol×K	737.81	Joback Method
cpg	762.64	J/mol×K	765.09	Joback Method
cpg	773.63	J/mol×K	792.36	Joback Method
cpg	783.96	J/mol×K	819.64	Joback Method
cpg	793.68	J/mol×K	846.92	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=U394020&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