Glutaric acid, 2,2,3,3,4,4,5,5-octafluoropentyl 3,7-dimethyloctyl ester

Inchi: InChI=1S/C20H30F8O4/c1-13(2)6-4-7-14(3)10-11-31-15(29)8-5-9-16(30)32-12-18(23,24
InchiKey: OFXNBQAYKCBIOC-UHFFFAOYSA-N
Formula: C20H30F8O4
SMILES: CC(C)CCCC(C)CCOC(=O)CCCC(=O)OCC(F)(F)C(F)(F)C(F)(F)C(F)F
Mol. weight [g/mol]: 486.44

Physical Properties

Property code	Value	Unit	Source
gf	-1907.60	kJ/mol	Joback Method
hf	-2556.70	kJ/mol	Joback Method
hfus	44.96	kJ/mol	Joback Method
hvap	66.84	kJ/mol	Joback Method
log10ws	-6.69		Crippen Method
logp	6.267		Crippen Method
mcvol	321.700	ml/mol	McGowan Method
pc	904.52	kPa	Joback Method
rinpol	2014.00		NIST Webbook
rinpol	2014.00		NIST Webbook
tb	792.73	K	Joback Method
tc	970.53	K	Joback Method
tf	426.46	K	Joback Method
vc	1.296	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1033.66	J/mol×K	792.73	Joback Method
cpg	1050.02	J/mol×K	822.36	Joback Method
cpg	1065.37	J/mol×K	852.00	Joback Method
cpg	1079.75	J/mol×K	881.63	Joback Method
cpg	1093.23	J/mol×K	911.26	Joback Method
cpg	1105.87	J/mol×K	940.90	Joback Method
cpg	1117.72	J/mol×K	970.53	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U391481&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