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

Inchi: InChI=1S/C20H30F8O4/c1-3-4-5-6-7-8-10-14(2)32-16(30)12-9-11-15(29)31-13-18(23,24

InchiKey: PCVLACPOKMWOHK-UHFFFAOYSA-N

Formula: C20H30F8O4

SMILES: CCCCCCCCC(C)OC(=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	-1905.16	kJ/mol	Joback Method
hf	-2551.42	kJ/mol	Joback Method
hfus	48.48	kJ/mol	Joback Method
hvap	67.23	kJ/mol	Joback Method
log10ws	-7.29		Crippen Method
logp	6.553		Crippen Method
mcvol	321.700	ml/mol	McGowan Method
pc	900.18	kPa	Joback Method
rinpol	1991.00		NIST Webbook
rinpol	1991.00		NIST Webbook
tb	793.17	K	Joback Method
tc	971.09	K	Joback Method
tf	441.46	K	Joback Method
vc	1.302	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1033.16	J/mol×K	793.17	Joback Method
cpg	1049.52	J/mol×K	822.82	Joback Method
cpg	1064.88	J/mol×K	852.48	Joback Method
cpg	1079.28	J/mol×K	882.13	Joback Method
cpg	1092.79	J/mol×K	911.78	Joback Method
cpg	1105.46	J/mol×K	941.44	Joback Method
cpg	1117.34	J/mol×K	971.09	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=U393504&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