Fumaric acid, 2,2,3,3,4,4,5,5-octafluoropentyl pentadecyl ester

Inchi: InChI=1S/C24H36F8O4/c1-2-3-4-5-6-7-8-9-10-11-12-13-14-17-35-19(33)15-16-20(34)36
InchiKey: VZFGREUICPMQJL-FOCLMDBBSA-N
Formula: C24H36F8O4
SMILES: CCCCCCCCCCCCCCCOC(=O)C=CC(=O)OCC(F)(F)C(F)(F)C(F)(F)C(F)F
Mol. weight [g/mol]: 540.53

Physical Properties

Property code	Value	Unit	Source
gf	-1788.82	kJ/mol	Joback Method
hf	-2511.48	kJ/mol	Joback Method
hfus	62.57	kJ/mol	Joback Method
hvap	76.48	kJ/mol	Joback Method
log10ws	-8.70		Crippen Method
logp	7.891		Crippen Method
mcvol	373.760	ml/mol	McGowan Method
pc	741.24	kPa	Joback Method
rinpol	2520.00		NIST Webbook
rinpol	2520.00		NIST Webbook
tb	889.29	K	Joback Method
tc	1096.45	K	Joback Method
tf	496.46	K	Joback Method
vc	1.512	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1248.27	J/mol×K	889.29	Joback Method
cpg	1266.75	J/mol×K	923.82	Joback Method
cpg	1284.04	J/mol×K	958.34	Joback Method
cpg	1300.25	J/mol×K	992.87	Joback Method
cpg	1315.50	J/mol×K	1027.40	Joback Method
cpg	1329.91	J/mol×K	1061.93	Joback Method
cpg	1343.57	J/mol×K	1096.45	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U348791&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

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