Terephthalic acid, 2,2,3,3,4,4,4-heptafluorobutyl isobutyl ester

Inchi: InChI=1S/C16H15F7O4/c1-9(2)7-26-12(24)10-3-5-11(6-4-10)13(25)27-8-14(17,18)15(19

InchiKey: YKDNUNXVRKFALW-UHFFFAOYSA-N

Formula: C16H15F7O4

SMILES: CC(C)COC(=O)c1ccc(C(=O)OCC(F)(F)C(F)(F)C(F)(F)F)cc1

Mol. weight [g/mol]: 404.28

Physical Properties

Property code	Value	Unit	Source
gf	-1638.81	kJ/mol	Joback Method
hf	-2042.41	kJ/mol	Joback Method
hfus	32.22	kJ/mol	Joback Method
hvap	62.47	kJ/mol	Joback Method
log10ws	-5.52		Crippen Method
logp	4.489		Crippen Method
mcvol	239.810	ml/mol	McGowan Method
pc	1483.85	kPa	Joback Method
rinpol	1732.00		NIST Webbook
rinpol	1732.00		NIST Webbook
tb	734.48	K	Joback Method
tc	918.60	K	Joback Method
tf	449.73	K	Joback Method
vc	0.959	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	710.11	J/mol×K	734.48	Joback Method
cpg	722.67	J/mol×K	765.17	Joback Method
cpg	734.33	J/mol×K	795.85	Joback Method
cpg	745.13	J/mol×K	826.54	Joback Method
cpg	755.13	J/mol×K	857.23	Joback Method
cpg	764.38	J/mol×K	887.91	Joback Method
cpg	772.94	J/mol×K	918.60	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=U415937&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