2-[2-[2-(2-Methoxyethoxy)ethoxy]ethoxy]ethyl 2,2,3,3,3-pentafluoroprpanoate

Other names: Tetraethylene glycol monomethyl ether, pentafluoropropionate
3,6,9,12-Tetraoxatridec-1-yl pentafluoropropionate

Inchi: InChI=1S/C12H19F5O6/c1-19-2-3-20-4-5-21-6-7-22-8-9-23-10(18)11(13,14)12(15,16)17

InchiKey: CIPYBQIMJRGDJD-UHFFFAOYSA-N

Formula: C12H19F5O6

SMILES: COCCOCCOCCOCCOC(=O)C(F)(F)C(F)(F)F

Mol. weight [g/mol]: 354.27

Physical Properties

Property code	Value	Unit	Source
gf	-1572.13	kJ/mol	Joback Method
hf	-2062.74	kJ/mol	Joback Method
hfus	34.95	kJ/mol	Joback Method
hvap	54.42	kJ/mol	Joback Method
log10ws	-1.03		Crippen Method
logp	1.423		Crippen Method
mcvol	219.710	ml/mol	McGowan Method
pc	1503.48	kPa	Joback Method
rinpol	1484.80		NIST Webbook
tb	629.82	K	Joback Method
tc	786.43	K	Joback Method
tf	393.87	K	Joback Method
vc	0.872	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	622.04	J/mol×K	629.82	Joback Method
cpg	635.54	J/mol×K	655.92	Joback Method
cpg	648.45	J/mol×K	682.02	Joback Method
cpg	660.75	J/mol×K	708.13	Joback Method
cpg	672.46	J/mol×K	734.23	Joback Method
cpg	683.57	J/mol×K	760.33	Joback Method
cpg	694.10	J/mol×K	786.43	Joback Method

Sources

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=U351970&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

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