2-[2-(2-Ethoxyethoxy)ethoxy]ethyl 2,2,3,3,3-pentafluoropropanoate

Other names: Triethylene glycol monoethyl ether, pentafluoropropionate
3,6,9-Trioxaundec-1-yl pentafluoropropionate

Inchi: InChI=1S/C11H17F5O5/c1-2-18-3-4-19-5-6-20-7-8-21-9(17)10(12,13)11(14,15)16/h2-8H

InchiKey: AGLKEEOFOBNSPE-UHFFFAOYSA-N

Formula: C11H17F5O5

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

Mol. weight [g/mol]: 324.24

Physical Properties

Property code	Value	Unit	Source
gf	-1475.55	kJ/mol	Joback Method
hf	-1909.88	kJ/mol	Joback Method
hfus	31.17	kJ/mol	Joback Method
hvap	49.79	kJ/mol	Joback Method
log10ws	-1.53		Crippen Method
logp	1.797		Crippen Method
mcvol	199.750	ml/mol	McGowan Method
pc	1644.42	kPa	Joback Method
rinpol	1293.30		NIST Webbook
tb	584.52	K	Joback Method
tc	739.37	K	Joback Method
tf	360.37	K	Joback Method
vc	0.797	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	543.22	J/mol×K	584.52	Joback Method
cpg	556.23	J/mol×K	610.33	Joback Method
cpg	568.68	J/mol×K	636.14	Joback Method
cpg	580.58	J/mol×K	661.95	Joback Method
cpg	591.92	J/mol×K	687.76	Joback Method
cpg	602.72	J/mol×K	713.56	Joback Method
cpg	612.99	J/mol×K	739.37	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=U351985&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