2-(2-Butoxyethoxy)ethyl 2,2,3,3,3-pentafluoropropanoate

Other names: Diethylene glycol butyl ether, pentafluoropropionate
3,6-Dioxaodec-1-yl pentafluoropropionate

Inchi: InChI=1S/C11H17F5O4/c1-2-3-4-18-5-6-19-7-8-20-9(17)10(12,13)11(14,15)16/h2-8H2,1

InchiKey: BVFJSGYWFZESCP-UHFFFAOYSA-N

Formula: C11H17F5O4

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

Mol. weight [g/mol]: 308.24

Physical Properties

Property code	Value	Unit	Source
gf	-1370.55	kJ/mol	Joback Method
hf	-1777.66	kJ/mol	Joback Method
hfus	29.98	kJ/mol	Joback Method
hvap	47.38	kJ/mol	Joback Method
log10ws	-2.44		Crippen Method
logp	2.561		Crippen Method
mcvol	193.880	ml/mol	McGowan Method
pc	1667.33	kPa	Joback Method
rinpol	1214.30		NIST Webbook
rinpol	1214.30		NIST Webbook
tb	562.10	K	Joback Method
tc	716.20	K	Joback Method
tf	338.14	K	Joback Method
vc	0.779	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	516.14	J/mol×K	562.10	Joback Method
cpg	529.32	J/mol×K	587.78	Joback Method
cpg	541.92	J/mol×K	613.47	Joback Method
cpg	553.96	J/mol×K	639.15	Joback Method
cpg	565.43	J/mol×K	664.83	Joback Method
cpg	576.36	J/mol×K	690.52	Joback Method

cpg	586.76	J/mol×K	716.20	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U351987&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