2-(2-Methoxyethoxy)ethyl 2,2,3,3,4,4,4-heptafluorobutanoate

Other names: Diethylene glycol monomethyl ether, heptafluorobutyrate

3,6-Dioxahept-1-yl heptafluorobutyrate

Inchi: InChI=1S/C9H11F7O4/c1-18-2-3-19-4-5-20-6(17)7(10,11)8(12,13)9(14,15)16/h2-5H2,1H

InchiKey: WSUKIWBSTWECGD-UHFFFAOYSA-N

Formula: C9H11F7O4

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

Mol. weight [g/mol]: 316.17

Physical Properties

Property code	Value	Unit	Source
gf	-1774.17	kJ/mol	Joback Method
hf	-2137.35	kJ/mol	Joback Method
hfus	23.55	kJ/mol	Joback Method
hvap	40.00	kJ/mol	Joback Method
log10ws	-1.92		Crippen Method
logp	2.026		Crippen Method
mcvol	169.240	ml/mol	McGowan Method
pc	1845.16	kPa	Joback Method
rinpol	1032.80		NIST Webbook
tb	511.65	K	Joback Method
tc	660.94	K	Joback Method
tf	319.20	K	Joback Method
vc	0.693	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	440.13	J/mol×K	511.65	Joback Method
cpg	451.76	J/mol×K	536.53	Joback Method
cpg	462.82	J/mol×K	561.41	Joback Method
cpg	473.32	J/mol×K	586.30	Joback Method
cpg	483.29	J/mol×K	611.18	Joback Method
cpg	492.74	J/mol×K	636.06	Joback Method
cpg	501.69	J/mol×K	660.94	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=U352004&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