

2-[2-[2-[2-(2-Methoxyethoxy)ethoxy]ethoxy]ethoxy]ethoxy

Other names: Pentaethylene glycol monomethyl ether, trifluoroacetate
2,2,2-trifluoroacetate 3,6,9,12,15-Heptaoxahexadec-1-yl trifluoroacetate

Inchi: InChI=1S/C13H23F3O7/c1-18-2-3-19-4-5-20-6-7-21-8-9-22-10-11-23-12(17)13(14,15)16
InchiKey: RQIOLDBBMAMLIH-UHFFFAOYSA-N
Formula: C13H23F3O7
SMILES: COCCOCCOCCOCCOCCOC(=O)C(F)(F)F
Mol. weight [g/mol]: 348.31

Physical Properties

Property code	Value	Unit	Source
gf	-1281.93	kJ/mol	Joback Method
hf	-1814.63	kJ/mol	Joback Method
hfus	39.98	kJ/mol	Joback Method
hvap	61.99	kJ/mol	Joback Method
log10ws	-0.23		Crippen Method
logp	0.805		Crippen Method
mcvol	236.130	ml/mol	McGowan Method
pc	1455.68	kPa	Joback Method
rinpol	1729.70		NIST Webbook
rinpol	1729.70		NIST Webbook
tb	679.81	K	Joback Method
tc	842.72	K	Joback Method
tf	423.77	K	Joback Method
vc	0.920	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	685.44	J/molxK	679.81	Joback Method
cpg	699.98	J/molxK	706.96	Joback Method
cpg	713.88	J/molxK	734.11	Joback Method
cpg	727.10	J/molxK	761.26	Joback Method
cpg	739.65	J/molxK	788.42	Joback Method
cpg	751.50	J/molxK	815.57	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=U351957&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
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

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