

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

Other names

Pentaerythrene glycol monomethyl ether, pentafluoropropionate
3,6,9,12,15-Heptaoxahexadec-1-yl pentafluoropropionate

Inchi:	InChI=1S/C14H23F5O7/c1-21-2-3-22-4-5-23-6-7-24-8-9-25-10-11-26-12(20)13(15,16)14
InchiKey:	SYYYDXKEJJYKGC-UHFFFAOYSA-N
Formula:	C14H23F5O7
SMILES:	COCCOCCOCCOCCOCCOC(=O)C(F)(F)C(F)(F)F
Mol. weight [g/mol]:	398.32

Physical Properties

Property code	Value	Unit	Source
gf	-1660.29	kJ/mol	Joback Method
hf	-2236.24	kJ/mol	Joback Method
hfus	41.31	kJ/mol	Joback Method
hvap	61.29	kJ/mol	Joback Method
log10ws	-0.96		Crippen Method
logp	1.440		Crippen Method
mcvol	253.760	ml/mol	McGowan Method
pc	1286.51	kPa	Joback Method
rinpol	1735.10		NIST Webbook
tb	698.00	K	Joback Method
tc	859.96	K	Joback Method
tf	438.64	K	Joback Method
vc	1.002	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	758.77	J/molxK	698.00	Joback Method
cpg	773.34	J/molxK	724.99	Joback Method
cpg	787.18	J/molxK	751.99	Joback Method
cpg	800.29	J/molxK	778.98	Joback Method
cpg	812.67	J/molxK	805.97	Joback Method
cpg	824.31	J/molxK	832.97	Joback Method
cpg	835.21	J/molxK	859.96	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=U351971&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307I

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
hvp:	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
rinp:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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