2-(2-(2-(2-(2-(2-(2-Pentoxy-ethoxy)-ethoxy)-ethoxy)-ethoxy)-ethoxy)-ethoxy)-ethyl trifluoroacetate

InchiKey: TYPBJNBCIVWXJV-UHFFFAOYSA-N

Formula: C23H43F3O10

SMILES: CCCC(C)OCCOCCOCCOCCOCCOCCOCCOCCOC(=O)C(F)(F)F

Mol. weight [g/mol]: 536.58

Physical Properties

Property code	Value	Unit	Source
gf	-1515.17	kJ/mol	Joback Method
hf	-2422.97	kJ/mol	Joback Method
hfus	65.92	kJ/mol	Joback Method
hvap	91.09	kJ/mol	Joback Method
log10ws	-1.79		Crippen Method
logp	2.413		Crippen Method
mcvol	394.640	ml/mol	McGowan Method
pc	761.42	kPa	Joback Method
rinpol	2901.20		NIST Webbook
rinpol	2901.20		NIST Webbook
tb	975.43	K	Joback Method
tc	1220.03	K	Joback Method
tf	588.16	K	Joback Method
vc	1.528	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1373.39	J/mol×K	975.43	Joback Method
cpg	1391.50	J/mol×K	1016.20	Joback Method
cpg	1406.62	J/mol×K	1056.96	Joback Method
cpg	1418.71	J/mol×K	1097.73	Joback Method
cpg	1427.70	J/mol×K	1138.50	Joback Method
cpg	1433.52	J/mol×K	1179.26	Joback Method
cpg	1436.12	J/mol×K	1220.03	Joback Method

Sources

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
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=R187896&Units=SI

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