2-[2-[2-[2-[2-[2-[2-[2-[2-[2-[2-[2-[2-[2-(2,2,3,3,3-Pentafl
2,2,3,3,3-pentafluoropropanoate

Other names: 4,7,10,13,16,19,22,25,28,31,34,37,40-Tridecaoxadotetracontane-1,42-diyl bis(2,2,3,3,3-pentafluoropropanoate), Tridecaethylene glycol, bis(pentafluoropropionate), pentafluoropropionate

Inchi: InChI=1S/C32H52F10O16/c33-29(34,31(37,38)39)27(43)57-25-23-55-21-19-53-17-15-51

InchiKey: OPYVUYBVIUDGPS-UHFFFAOYSA-N

Formula: C32H52F10O16

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

Mol. weight [g/mol]: 882.73

Physical Properties

Property code	Value	Unit	Source
gf	-3446.02	kJ/mol	Joback Method
hf	-4776.15	kJ/mol	Joback Method
hfus	99.61	kJ/mol	Joback Method
hvap	120.70	kJ/mol	Joback Method
log10ws	-1.94		Crippen Method
logp	2.667		Crippen Method
mcvol	564.760	ml/mol	McGowan Method
pc	438.40	kPa	Joback Method
rinpol	3631.80		NIST Webbook
rinpol	3631.80		NIST Webbook
tb	1332.96	K	Joback Method
tc	2195.50	K	Joback Method
tf	877.06	K	Joback Method
vc	2.228	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	2033.51	J/mol×K	1332.96	Joback Method
cpg	1969.19	J/mol×K	1476.72	Joback Method
cpg	1851.30	J/mol×K	1620.47	Joback Method
cpg	1678.55	J/mol×K	1764.23	Joback Method
cpg	1449.66	J/mol×K	1907.98	Joback Method
cpg	1163.35	J/mol×K	2051.74	Joback Method

cpg	818.33	J/mol×K	2195.50	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U351990&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

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