2-[2-[2-[2-[2-[2-[2-[2-[2-[2-[2-(2,2,3,3,4,4,4-Heptafluoro
2,2,3,3,4,4,4-heptafluorobutanoate

Other names: 3,12,15,18,21,24,27,30-decaoxatetratriacon
Decaethylene glycol, bis(heptafluorobutyrate)
heptafluorobutyrate

Inchi: InChI=1S/C28H40F14O13/c29-23(30,25(33,34)27(37,38)39)21(43)54-19-17-52-15-13-50

InchiKey: PNEDRSIKDRJZIH-UHFFFAOYSA-N

Formula: C28H40F14O13

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

Mol. weight [g/mol]: 850.59

Physical Properties

Property code	Value	Unit	Source
gf	-3938.26	kJ/mol	Joback Method
hf	-5098.87	kJ/mol	Joback Method
hfus	83.18	kJ/mol	Joback Method
hvap	98.71	kJ/mol	Joback Method
log10ws	-3.64		Crippen Method
logp	3.888		Crippen Method
mcvol	497.870	ml/mol	McGowan Method
pc	497.58	kPa	Joback Method
rinpol	2924.10		NIST Webbook
rinpol	2924.10		NIST Webbook
tb	1164.80	K	Joback Method
tc	1680.87	K	Joback Method
tf	772.49	K	Joback Method
vc	2.000	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1806.79	J/mol×K	1164.80	Joback Method
cpg	1817.91	J/mol×K	1250.81	Joback Method
cpg	1818.52	J/mol×K	1336.82	Joback Method
cpg	1809.44	J/mol×K	1422.84	Joback Method
cpg	1791.46	J/mol×K	1508.85	Joback Method
cpg	1765.39	J/mol×K	1594.86	Joback Method

cpg	1732.04	J/mol×K	1680.87	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=U352024&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

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