1H,1H,15H-Octacosafluoro-1-pentadecanol

Inchi: InChI=1S/C15H4F28O/c16-2(17)4(20,21)6(24,25)8(28,29)10(32,33)12(36,37)14(40,41)1
InchiKey: OGVSRHJIJPNZGO-UHFFFAOYSA-N
Formula: C15H4F28O
SMILES: OCC(F)(F)C(F)(F)C(F)(F)C(F)(F)C(F)(F)C(F)(F)C(F)(F)C(F)(F)C(F)(F)C(F)(F)C(F)(F)C(F)(F)C(F
Mol. weight [g/mol]: 732.15

Physical Properties

Property code	Value	Unit	Source
gf	-5481.60	kJ/mol	Joback Method
hf	-6115.27	kJ/mol	Joback Method
hfus	25.03	kJ/mol	Joback Method
hvap	25.55	kJ/mol	Joback Method
log10ws	-9.76		Crippen Method
logp	8.503		Crippen Method
mcvol	277.640	ml/mol	McGowan Method
pc	784.19	kPa	Joback Method
rinpol	1302.00		NIST Webbook
rinpol	1290.00		NIST Webbook
rinpol	1277.00		NIST Webbook
rinpol	1302.00		NIST Webbook
tb	571.91	K	Joback Method
tc	700.71	K	Joback Method
tf	352.61	K	Joback Method
vc	1.250	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	895.90	J/mol×K	571.91	Joback Method
cpg	909.34	J/mol×K	593.38	Joback Method
cpg	921.62	J/mol×K	614.84	Joback Method
cpg	932.81	J/mol×K	636.31	Joback Method
cpg	942.99	J/mol×K	657.77	Joback Method
cpg	952.23	J/mol×K	679.24	Joback Method

cpg	960.62	J/mol×K	700.71	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=R67140&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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