Pentafluoropropanamide, N-hexadecyl-

Inchi: InChI=1S/C19H34F5NO/c1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-25-17(26)18(20,21)19
InchiKey: FNNSYSRKTSDZSA-UHFFFAOYSA-N
Formula: C19H34F5NO
SMILES: CCCCCCCCCCCCCCCCCNC(=O)C(F)(F)C(F)(F)F
Mol. weight [g/mol]: 387.47

Physical Properties

Property code	Value	Unit	Source
gf	-898.80	kJ/mol	Joback Method
hf	-1492.65	kJ/mol	Joback Method
hfus	52.24	kJ/mol	Joback Method
hvap	64.39	kJ/mol	Joback Method
log10ws	-7.72		Crippen Method
logp	6.782		Crippen Method
mcvol	298.970	ml/mol	McGowan Method
pc	1005.89	kPa	Joback Method
rinpol	2034.00		NIST Webbook
rinpol	2034.00		NIST Webbook
tb	728.05	K	Joback Method
tc	893.91	K	Joback Method
tf	414.27	K	Joback Method
vc	1.208	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	924.51	J/mol×K	728.05	Joback Method
cpg	942.05	J/mol×K	755.69	Joback Method
cpg	958.70	J/mol×K	783.34	Joback Method
cpg	974.49	J/mol×K	810.98	Joback Method
cpg	989.50	J/mol×K	838.62	Joback Method
cpg	1003.75	J/mol×K	866.27	Joback Method
cpg	1017.31	J/mol×K	893.91	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=U407342&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