Heptafluorobutanamide, N,N-bis(2-ethylhexyl)-

Inchi: InChI=1S/C20H34F7NO/c1-5-9-11-15(7-3)13-28(14-16(8-4)12-10-6-2)17(29)18(21,22)19
InchiKey: DRDRAZUGOVAKNM-UHFFFAOYSA-N
Formula: C20H34F7NO
SMILES: CCCCC(CC)CN(CC(CC)CCCC)C(=O)C(F)(F)C(F)(F)C(F)(F)F
Mol. weight [g/mol]: 437.48

Physical Properties

Property code	Value	Unit	Source
gf	-1260.65	kJ/mol	Joback Method
hf	-1910.76	kJ/mol	Joback Method
hfus	44.45	kJ/mol	Joback Method
hvap	58.52	kJ/mol	Joback Method
log10ws	-7.35		Crippen Method
logp	7.081		Crippen Method
mcvol	316.600	ml/mol	McGowan Method
pc	907.79	kPa	Joback Method
rinpol	1724.00		NIST Webbook
tb	707.63	K	Joback Method
tc	869.17	K	Joback Method
tf	378.95	K	Joback Method
vc	1.260	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	977.90	J/mol×K	707.63	Joback Method
cpg	996.14	J/mol×K	734.55	Joback Method
cpg	1013.40	J/mol×K	761.48	Joback Method
cpg	1029.75	J/mol×K	788.40	Joback Method
cpg	1045.24	J/mol×K	815.32	Joback Method
cpg	1059.94	J/mol×K	842.25	Joback Method
cpg	1073.89	J/mol×K	869.17	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=U308273&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