Heptafluorobutanamide, N-decyl-N-methyl-

Inchi: InChI=1S/C15H24F7NO/c1-3-4-5-6-7-8-9-10-11-23(2)12(24)13(16,17)14(18,19)15(20,21
InchiKey: BQYGTXNXEURVEP-UHFFFAOYSA-N
Formula: C15H24F7NO
SMILES: CCCCCCCCCCN(C)C(=O)C(F)(F)C(F)(F)C(F)(F)F
Mol. weight [g/mol]: 367.35

Physical Properties

Property code	Value	Unit	Source
gf	-1297.87	kJ/mol	Joback Method
hf	-1797.00	kJ/mol	Joback Method
hfus	38.54	kJ/mol	Joback Method
hvap	48.17	kJ/mol	Joback Method
log10ws	-5.74		Crippen Method
logp	5.418		Crippen Method
mcvol	246.150	ml/mol	McGowan Method
pc	1226.84	kPa	Joback Method
rinpol	1562.00		NIST Webbook
tb	594.11	K	Joback Method
tc	743.09	K	Joback Method
tf	352.60	K	Joback Method
vc	0.993	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	693.57	J/mol×K	594.11	Joback Method
cpg	709.53	J/mol×K	618.94	Joback Method
cpg	724.65	J/mol×K	643.77	Joback Method
cpg	738.97	J/mol×K	668.60	Joback Method
cpg	752.54	J/mol×K	693.43	Joback Method
cpg	765.40	J/mol×K	718.26	Joback Method
cpg	777.58	J/mol×K	743.09	Joback Method

Sources

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=U308272&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

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