Benzamide, pentafluoro-N-(pentafluorobenzoyl)-N-decyl-

Inchi: InChI=1S/C24H21F10NO2/c1-2-3-4-5-6-7-8-9-10-35(23(36)11-13(25)17(29)21(33)18(30)

InchiKey: YGHLZLPFHMXYDN-UHFFFAOYSA-N

Formula: C24H21F10NO2

SMILES: CCCCCCCCCCN(C(=O)c1c(F)c(F)c(F)c(F)c1F)C(=O)c1c(F)c(F)c(F)c(F)c1F

Mol. weight [g/mol]: 545.41

Physical Properties

Property code	Value	Unit	Source
gf	-1815.44	kJ/mol	Joback Method
hf	-2299.06	kJ/mol	Joback Method
hfus	79.13	kJ/mol	Joback Method
hvap	87.55	kJ/mol	Joback Method
log10ws	-10.67		Crippen Method
logp	7.501		Crippen Method
mcvol	332.320	ml/mol	McGowan Method
pc	898.56	kPa	Joback Method
rinpol	2247.00		NIST Webbook
rinpol	2247.00		NIST Webbook
tb	964.56	K	Joback Method
tc	1189.57	K	Joback Method
tf	676.51	K	Joback Method
vc	1.373	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1063.98	J/mol×K	964.56	Joback Method
cpg	1077.54	J/mol×K	1002.06	Joback Method
cpg	1089.81	J/mol×K	1039.56	Joback Method
cpg	1100.85	J/mol×K	1077.07	Joback Method
cpg	1110.70	J/mol×K	1114.57	Joback Method
cpg	1119.40	J/mol×K	1152.07	Joback Method
cpg	1127.02	J/mol×K	1189.57	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=U407961&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