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

Inchi: InChI=1S/C16H5F10NO2/c1-2-27(15(28)3-5(17)9(21)13(25)10(22)6(3)18)16(29)4-7(19)1

InchiKey: XJTNWZDABRQGOF-UHFFFAOYSA-N

Formula: C16H5F10NO2

SMILES: CCN(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]: 433.20

Physical Properties

Property code	Value	Unit	Source
gf	-1882.80	kJ/mol	Joback Method
hf	-2133.94	kJ/mol	Joback Method
hfus	58.41	kJ/mol	Joback Method
hvap	69.75	kJ/mol	Joback Method
log10ws	-7.32		Crippen Method
logp	4.380		Crippen Method
mcvol	219.600	ml/mol	McGowan Method
pc	1516.39	kPa	Joback Method
rinpol	1557.00		NIST Webbook
rinpol	1557.00		NIST Webbook
tb	781.52	K	Joback Method
tc	963.26	K	Joback Method
tf	586.35	K	Joback Method
vc	0.925	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	611.46	J/mol×K	781.52	Joback Method
cpg	620.65	J/mol×K	811.81	Joback Method
cpg	629.21	J/mol×K	842.10	Joback Method
cpg	637.16	J/mol×K	872.39	Joback Method
cpg	644.50	J/mol×K	902.68	Joback Method
cpg	651.24	J/mol×K	932.97	Joback Method
cpg	657.40	J/mol×K	963.26	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=U407953&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