Benzamide, 3,4-difluoro-N-(3,4-difluorobenzoyl)-N-methyl-

Inchi: InChI=1S/C15H9F4NO2/c1-20(14(21)8-2-4-10(16)12(18)6-8)15(22)9-3-5-11(17)13(19)7-

InchiKey: OSYYQDSYZYVGTF-UHFFFAOYSA-N

Formula: C15H9F4NO2

SMILES: CN(C(=O)c1ccc(F)c(F)c1)C(=O)c1ccc(F)c(F)c1

Mol. weight [g/mol]: 311.23

Physical Properties

Property code	Value	Unit	Source
gf	-664.58	kJ/mol	Joback Method
hf	-867.82	kJ/mol	Joback Method
hfus	39.67	kJ/mol	Joback Method
hvap	68.45	kJ/mol	Joback Method
log10ws	-4.91		Crippen Method
logp	3.155		Crippen Method
mcvol	194.890	ml/mol	McGowan Method
pc	2241.88	kPa	Joback Method
rinpol	1816.00		NIST Webbook
rinpol	1816.00		NIST Webbook
tb	733.14	K	Joback Method
tc	941.91	K	Joback Method
tf	496.42	K	Joback Method
vc	0.761	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	521.09	J/mol×K	733.14	Joback Method
cpg	532.49	J/mol×K	767.94	Joback Method
cpg	543.02	J/mol×K	802.73	Joback Method
cpg	552.73	J/mol×K	837.53	Joback Method
cpg	561.66	J/mol×K	872.32	Joback Method
cpg	569.83	J/mol×K	907.12	Joback Method
cpg	577.31	J/mol×K	941.91	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=U407805&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