Benzamide, 2,5-difluoro-N-(2,5-difluorobenzoyl)-N-decyl-

Inchi: InChI=1S/C24H27F4NO2/c1-2-3-4-5-6-7-8-9-14-29(23(30)19-15-17(25)10-12-21(19)27)2

InchiKey: VPSMIORFKVJJLI-UHFFFAOYSA-N

Formula: C24H27F4NO2

SMILES: CCCCCCCCCCN(C(=O)c1cc(F)ccc1F)C(=O)c1cc(F)ccc1F

Mol. weight [g/mol]: 437.47

Physical Properties

Property code	Value	Unit	Source
gf	-588.80	kJ/mol	Joback Method
hf	-1053.58	kJ/mol	Joback Method
hfus	62.98	kJ/mol	Joback Method
hvap	88.48	kJ/mol	Joback Method
log10ws	-8.68		Crippen Method
logp	6.666		Crippen Method
mcvol	321.700	ml/mol	McGowan Method
pc	1129.10	kPa	Joback Method
rinpol	2638.00		NIST Webbook
rinpol	2638.00		NIST Webbook
tb	939.06	K	Joback Method
tc	1150.63	K	Joback Method
tf	597.85	K	Joback Method
vc	1.266	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1028.38	J/mol×K	939.06	Joback Method
cpg	1042.82	J/mol×K	974.32	Joback Method
cpg	1056.18	J/mol×K	1009.58	Joback Method
cpg	1068.52	J/mol×K	1044.84	Joback Method
cpg	1079.93	J/mol×K	1080.10	Joback Method
cpg	1090.46	J/mol×K	1115.36	Joback Method
cpg	1100.20	J/mol×K	1150.63	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=U407611&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