Benzamide, 4-methyl-N-(4-methylbenzoyl)-N-ethyl-

Inchi: InChI=1S/C18H19NO2/c1-4-19(17(20)15-9-5-13(2)6-10-15)18(21)16-11-7-14(3)8-12-16/h
InchiKey: AXHMOTAWOLXEOZ-UHFFFAOYSA-N
Formula: C18H19NO2
SMILES: CCN(C(=O)c1ccc(C)cc1)C(=O)c1ccc(C)cc1
Mol. weight [g/mol]: 281.35

Physical Properties

Property code	Value	Unit	Source
gf	159.18	kJ/mol	Joback Method
hf	-122.36	kJ/mol	Joback Method
hfus	35.90	kJ/mol	Joback Method
hvap	77.07	kJ/mol	Joback Method
log10ws	-4.95		Crippen Method
logp	3.606		Crippen Method
mcvol	230.080	ml/mol	McGowan Method
pc	2085.03	kPa	Joback Method
rinpol	2189.00		NIST Webbook
rinpol	2189.00		NIST Webbook
tb	794.74	K	Joback Method
tc	1026.09	K	Joback Method
tf	502.83	K	Joback Method
vc	0.858	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	653.93	J/mol×K	794.74	Joback Method
cpg	668.90	J/mol×K	833.30	Joback Method
cpg	682.68	J/mol×K	871.86	Joback Method
cpg	695.34	J/mol×K	910.41	Joback Method
cpg	706.97	J/mol×K	948.97	Joback Method
cpg	717.64	J/mol×K	987.53	Joback Method
cpg	727.43	J/mol×K	1026.09	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=U407481&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