Benzamide, N-(4-methylphenyl)-

Other names:	p-Benzotoluidide
	p-Toluoylaniline
	Benzamide, N-p-tolyl-
	Benzoic acid p-toluidide
	N-Benzoyl-p-toluidine
	4'-Methylbenzanilide
Inchi:	InChI=1S/C14H13NO/c1-11-7-9-13(10-8-11)15-14(16)12-5-3-2-4-6-12/h2-10H,1H3,(H,15
InchiKey:	YUIHXKGKVSVIEL-UHFFFAOYSA-N
Formula:	C14H13NO
SMILES:	Cc1ccc(NC(=O)c2ccccc2)cc1
Mol. weight [g/mol]:	211.26
CAS:	582-78-5

Physical Properties

Property code	Value	Unit	Source
gf	242.66	kJ/mol	Joback Method
hf	70.19	kJ/mol	Joback Method
hfus	26.41	kJ/mol	Joback Method
hvap	65.15	kJ/mol	Joback Method
log10ws	-3.92		Crippen Method
logp	3.247		Crippen Method
mcvol	172.150	ml/mol	McGowan Method
pc	2956.90	kPa	Joback Method
tb	682.10	K	Joback Method
tc	926.72	K	Joback Method
tf	415.49	K	Joback Method
vc	0.644	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	440.30	J/mol×K	682.10	Joback Method
cpg	455.12	J/mol×K	722.87	Joback Method
cpg	468.73	J/mol×K	763.64	Joback Method

cpg	481.19	J/mol×K	804.41	Joback Method
cpg	492.58	J/mol×K	845.18	Joback Method
cpg	502.98	J/mol×K	885.95	Joback Method
cpg	512.46	J/mol×K	926.72	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=C582785&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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume