

Benzamide, 4-amino-

Other names:	4-Aminobenzamide Benzamide, p-amino- p-Aminobenzamide p-Aminobenzoic acid amide p-Carbamoylaniline
Inchi:	InChI=1S/C7H8N2O/c8-6-3-1-5(2-4-6)7(9)10/h1-4H,8H2,(H2,9,10)
InchiKey:	QIKYZXDTTPVVAC-UHFFFAOYSA-N
Formula:	C7H8N2O
SMILES:	NC(=O)c1ccc(N)cc1
Mol. weight [g/mol]:	136.15
CAS:	2835-68-9

Physical Properties

Property code	Value	Unit	Source
affp	927.90	kJ/mol	NIST Webbook
basg	896.90	kJ/mol	NIST Webbook
chs	-3711.20	kJ/mol	NIST Webbook
gf	114.82	kJ/mol	Joback Method
hf	-7.75	kJ/mol	Joback Method
hfs	-187.00	kJ/mol	NIST Webbook
hfus	19.53	kJ/mol	Joback Method
hvap	62.14	kJ/mol	Joback Method
log10ws	-1.28		Crippen Method
logp	0.368		Crippen Method
mcvol	107.260	ml/mol	McGowan Method
pc	5123.98	kPa	Joback Method
tb	590.15	K	Joback Method
tc	837.19	K	Joback Method
tf	424.04	K	Joback Method
tt	457.60	K	Experimental and computational thermodynamic study of ortho- meta- and para-aminobenzamide
tt	453.40	K	Determination and Modeling of Solubility of 4-Aminobenzamide in Different Pure Solvents
vc	0.384	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	248.85	J/molxK	590.15	Joback Method
cpg	259.00	J/molxK	631.32	Joback Method
cpg	268.39	J/molxK	672.50	Joback Method
cpg	277.04	J/molxK	713.67	Joback Method
cpg	284.99	J/molxK	754.84	Joback Method
cpg	292.28	J/molxK	796.02	Joback Method
cpg	298.94	J/molxK	837.19	Joback Method

Sources

Crippen Method:

https://www.chemeo.com/doc/models/crippen_log10ws

Experimental and computational thermodynamic study of ortho- meta- and para-aminobenzamide. Determination and Modeling of Solubility of 4-Aminobenzamide in Different Solvents:

<https://www.doi.org/10.1016/j.jct.2012.12.006>

<https://www.doi.org/10.1021/acs.jced.8b01144>

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=C2835689&Units=SI>

Crippen Method:

<http://pubs.acs.org/doi/abs/10.1021/ci990307l>

Legend

affp: Proton affinity

basg: Gas basicity

chs: Standard solid enthalpy of combustion

cpg: Ideal gas heat capacity

gf: Standard Gibbs free energy of formation

hf: Enthalpy of formation at standard conditions

hfs: Solid phase enthalpy of formation at standard conditions

hfus: Enthalpy of fusion at standard conditions

hvp: 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
tt:	Triple Point Temperature
vc:	Critical Volume

Latest version available from:

<https://www.chemeo.com/cid/48-505-8/Benzamide-4-amino.pdf>

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