

L-Pyroglutamic acid

Other names:	Pidolic acid
	(S)-(-)-2-Pyrrolidone-5-carboxylic acid
	5-Oxo-L-proline
	L-2-Pyrrolidone-5-carboxylic acid
	L-Proline, 5-oxo-
	5-Oxoproline
	Proline, 5-oxo-
	5-Oxopyrrolidine-2-carboxylic acid
	5-Pyrrolidone-2-carboxylic acid
	Ajidew A-100
	l-5-Pyrrolidone-2-carboxylic acid
	PCA
	Pidolidone
	Pyroglutamic acid
	(-)-2-Pyrrolidone-5-carboxylic acid
	(5S)-2-xopyrrolidine-5-carboxylic acid
	(S)-5-Oxo-2-pyrrolidinecarboxylic acid
	2-L-Pyrrolidone-5-carboxylic acid
	2-Pyrrolidinone-5-carboxylic acid
	5-Carboxy-2-pyrrolidinone
	5-Pyrrolidinone-2-carboxylic acid
	Glutimic acid
	L-5-Carboxy-2-pyrrolidinone
	L-5-Oxo-2-pyrrolidinecarboxylic acid
	L-5-Oxoproline
	L-Glutamic acid «gamma»-lactam
	L-Glutiminic acid
	NSC 143034
	Pyrrolidonecarboxylic acid
Inchi:	InChI=1S/C5H7NO3/c7-4-2-1-3(6-4)5(8)9/h3H,1-2H2,(H,6,7)(H,8,9)/t3-/m0/s1
InchiKey:	ODHCTXKNWHHXJC-VKHYHEASA-N
Formula:	C5H7NO3
SMILES:	O=C1CCC(C(=O)O)N1
Mol. weight [g/mol]:	129.11
CAS:	98-79-3

Physical Properties

Property code	Value	Unit	Source
gf	-272.85	kJ/mol	Joback Method
hf	-450.75	kJ/mol	Joback Method
hfus	17.43	kJ/mol	Joback Method
hvap	61.41	kJ/mol	Joback Method
log10ws	0.01		Crippen Method
logp	-0.650		Crippen Method
mcvol	89.440	ml/mol	McGowan Method
pc	5889.94	kPa	Joback Method
tb	591.50	K	Joback Method
tc	811.70	K	Joback Method
tf	441.01	K	Joback Method
vc	0.326	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	220.24	J/mol×K	591.50	Joback Method
cpg	230.15	J/mol×K	628.20	Joback Method
cpg	239.54	J/mol×K	664.90	Joback Method
cpg	248.40	J/mol×K	701.60	Joback Method
cpg	256.72	J/mol×K	738.30	Joback Method
cpg	264.47	J/mol×K	775.00	Joback Method
cpg	271.63	J/mol×K	811.70	Joback Method

Sources

McGowan Method:

<http://link.springer.com/article/10.1007/BF02311772>

NIST Webbook:

<http://webbook.nist.gov/cgi/cbook.cgi?ID=C98793&Units=SI>

Crippen Method:

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

Crippen Method:

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

Joback Method:

https://en.wikipedia.org/wiki/Joback_method

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

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