

# Arginine

**Other names:**

L-Arginine  
Arginine, L-  
L-(+)-Arginine  
Norvaline, 5-[(aminoiminomethyl)amino]-, (L)-  
Pentanoic acid, 2-amino-5-[(aminoiminomethyl)amino]-, (S)-  
(S)-2-Amino-5-[(aminoiminomethyl)amino]pentanoic acid  
L-Norvaline, 5-[(aminoiminomethyl)amino]-  
L-Ornithine, N5-(aminoiminomethyl)-  
NSC 206269

**Inchi:**

InChI=1S/C6H14N4O2/c7-4(5(11)12)2-1-3-10-6(8)9/h4H,1-3,7H2,(H,11,12)(H4,8,9,10)/t4

**InchiKey:**

ODKSFYDXXFIFQN-SCSAIBSYSA-N

**Formula:**

C6H14N4O2

**SMILES:**

N=C(N)NCCCC(N)C(=O)O

**Mol. weight [g/mol]:**

174.20

**CAS:**

74-79-3

## Physical Properties

Property code	Value	Unit	Source
affp	1051.00	kJ/mol	NIST Webbook
affp	988.70	kJ/mol	NIST Webbook
basg	1006.60	kJ/mol	NIST Webbook
gf	157.35	kJ/mol	Joback Method
hf	-117.88	kJ/mol	Joback Method
hvap	91.79	kJ/mol	Joback Method
log10ws	-1.51		Crippen Method
logp	-1.338		Crippen Method
mcvol	138.460	ml/mol	McGowan Method
tb	761.86	K	Joback Method
tf	533.00 ± 3.00	K	NIST Webbook
tf	498.00 ± 15.00	K	NIST Webbook

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
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cpg	406.74	J/mol×K	761.86	Joback Method
cpg	82.60	J/mol×K	100.12	Joback Method
cpg	82.60	J/mol×K	100.12	Joback Method
cpg	82.60	J/mol×K	100.12	Joback Method
cpg	82.60	J/mol×K	100.12	Joback Method
cpg	82.60	J/mol×K	100.12	Joback Method
cpg	82.60	J/mol×K	100.12	Joback Method

## Sources

<b>Crippen Method:</b>	<a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.com/doc/models/crippen_log10ws</a>
<b>Joback Method:</b>	<a href="https://en.wikipedia.org/wiki/Joback_method">https://en.wikipedia.org/wiki/Joback_method</a>
<b>McGowan Method:</b>	<a href="http://link.springer.com/article/10.1007/BF02311772">http://link.springer.com/article/10.1007/BF02311772</a>
<b>NIST Webbook:</b>	<a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=C74793&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C74793&amp;Units=SI</a>
<b>Crippen Method:</b>	<a href="http://pubs.acs.org/doi/abs/10.1021/ci990307i">http://pubs.acs.org/doi/abs/10.1021/ci990307i</a>

## Legend

<b>affp:</b>	Proton affinity
<b>basg:</b>	Gas basicity
<b>cpg:</b>	Ideal gas heat capacity
<b>gf:</b>	Standard Gibbs free energy of formation
<b>hf:</b>	Enthalpy of formation at standard conditions
<b>hvap:</b>	Enthalpy of vaporization at standard conditions
<b>log10ws:</b>	Log10 of Water solubility in mol/l
<b>logp:</b>	Octanol/Water partition coefficient
<b>mcvol:</b>	McGowan's characteristic volume
<b>tb:</b>	Normal Boiling Point Temperature
<b>tf:</b>	Normal melting (fusion) point

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