

# Hydrazine, (4-methylphenyl)-

<b>Other names:</b>	Hydrazine, p-tolyl- p-Methylphenylhydrazine (4-Methylphenyl)hydrazine p-Tolylhydrazine 4-Hydrazinyltoluene 4-Tolylhydrazine
<b>Inchi:</b>	InChI=1S/C7H10N2/c1-6-2-4-7(9-8)5-3-6/h2-5,9H,8H2,1H3
<b>InchiKey:</b>	XAMBIJWZVIZZOG-UHFFFAOYSA-N
<b>Formula:</b>	C7H10N2
<b>SMILES:</b>	Cc1ccc(NN)cc1
<b>Mol. weight [g/mol]:</b>	122.17
<b>CAS:</b>	539-44-6

## Physical Properties

Property code	Value	Unit	Source
gf	266.68	kJ/mol	Joback Method
hf	124.51	kJ/mol	Joback Method
hfus	17.83	kJ/mol	Joback Method
hvap	51.19	kJ/mol	Joback Method
log10ws	-1.96		Crippen Method
logp	1.281		Crippen Method
mcvol	105.690	ml/mol	McGowan Method
pc	4420.84	kPa	Joback Method
tb	513.92	K	Joback Method
tc	742.60	K	Joback Method
tf	343.51	K	Joback Method
vc	0.384	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	229.43	J/mol×K	513.92	Joback Method
cpg	241.19	J/mol×K	552.03	Joback Method
cpg	252.19	J/mol×K	590.15	Joback Method

cpg	262.49	J/mol×K	628.26	Joback Method
cpg	272.09	J/mol×K	666.37	Joback Method
cpg	281.05	J/mol×K	704.49	Joback Method
cpg	289.38	J/mol×K	742.60	Joback Method
hvapt	65.40	kJ/mol	435.00	NIST Webbook

## Sources

<b>Crippen Method:</b>	<a href="http://pubs.acs.org/doi/abs/10.1021/ci9903071">http://pubs.acs.org/doi/abs/10.1021/ci9903071</a>
<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=C539446&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C539446&amp;Units=SI</a>

## Legend

<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>hfus:</b>	Enthalpy of fusion at standard conditions
<b>hvap:</b>	Enthalpy of vaporization at standard conditions
<b>hvapt:</b>	Enthalpy of vaporization at a given temperature
<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>pc:</b>	Critical Pressure
<b>tb:</b>	Normal Boiling Point Temperature
<b>tc:</b>	Critical Temperature
<b>tf:</b>	Normal melting (fusion) point
<b>vc:</b>	Critical Volume

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