

# p-Tolylacetic acid

<b>Other names:</b>	4-Methylphenylacetic acid p-Methylphenylacetic acid Benzeneacetic acid, 4-methyl- Acetic acid, (p-tolyl)- 4-Methylbenzeneacetic acid p-Tolylacetic acid
<b>Inchi:</b>	InChI=1S/C9H10O2/c1-7-2-4-8(5-3-7)6-9(10)11/h2-5H,6H2,1H3,(H,10,11)
<b>InchiKey:</b>	GXXXUZIRGXDFP-UHFFFAOYSA-N
<b>Formula:</b>	C9H10O2
<b>SMILES:</b>	<chem>Cc1ccc(CC(=O)O)cc1</chem>
<b>Mol. weight [g/mol]:</b>	150.17
<b>CAS:</b>	622-47-9

## Physical Properties

Property code	Value	Unit	Source
gf	-138.06	kJ/mol	Joback Method
hf	-268.84	kJ/mol	Joback Method
hfus	18.41	kJ/mol	Joback Method
hvap	61.99	kJ/mol	Joback Method
log10ws	-1.85		Crippen Method
logp	1.622		Crippen Method
mcvol	121.350	ml/mol	McGowan Method
pc	3853.09	kPa	Joback Method
tb	539.20	K	NIST Webbook
tc	787.21	K	Joback Method
tf	340.88	K	Joback Method
vc	0.457	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	280.42	J/mol×K	583.03	Joback Method
cpg	325.89	J/mol×K	753.18	Joback Method
cpg	317.91	J/mol×K	719.15	Joback Method

cpg	309.40	J/molxK	685.12	Joback Method
cpg	300.33	J/molxK	651.09	Joback Method
cpg	290.68	J/molxK	617.06	Joback Method
cpg	333.35	J/molxK	787.21	Joback Method
dvisc	0.0001039	Paxs	583.03	Joback Method
dvisc	0.0001544	Paxs	542.67	Joback Method
dvisc	0.0002445	Paxs	502.31	Joback Method
dvisc	0.0004197	Paxs	461.95	Joback Method
dvisc	0.0007988	Paxs	421.60	Joback Method
dvisc	0.0017423	Paxs	381.24	Joback Method
dvisc	0.0045711	Paxs	340.88	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=C622479&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C622479&amp;Units=SI</a>
<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>

## Legend

<b>cpg:</b>	Ideal gas heat capacity
<b>dvisc:</b>	Dynamic viscosity
<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>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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