

# 4'-Methylpropiophenone

<b>Other names:</b>	4-Methylpropiophenone p-Methylpropiophenone p-Tolyl ethyl ketone 1-Propanone, 1-(4-methylphenyl)- 1-(4-Methylphenyl)-1-propanone Propiophenone, 4'-methyl-
<b>Inchi:</b>	InChI=1S/C10H12O/c1-3-10(11)9-6-4-8(2)5-7-9/h4-7H,3H2,1-2H3
<b>InchiKey:</b>	PATYHUUYADUHQ5-UHFFFAOYSA-N
<b>Formula:</b>	C10H12O
<b>SMILES:</b>	CCC(=O)c1ccc(C)cc1
<b>Mol. weight [g/mol]:</b>	148.20
<b>CAS:</b>	5337-93-9

## Physical Properties

Property code	Value	Unit	Source
gf	7.18	kJ/mol	Joback Method
hf	-137.25	kJ/mol	Joback Method
hfus	16.91	kJ/mol	Joback Method
hvap	47.54	kJ/mol	Joback Method
log10ws	-3.03		Crippen Method
logp	2.588		Crippen Method
mcvol	129.570	ml/mol	McGowan Method
pc	3089.85	kPa	Joback Method
tb	511.70	K	NIST Webbook
tc	729.82	K	Joback Method
tf	291.33	K	Joback Method
vc	0.493	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	346.84	J/mol×K	729.82	Joback Method
cpg	336.91	J/mol×K	693.81	Joback Method
cpg	326.32	J/mol×K	657.79	Joback Method

cpg	315.02	J/mol×K	621.78	Joback Method
cpg	303.00	J/mol×K	585.76	Joback Method
cpg	290.22	J/mol×K	549.75	Joback Method
cpg	276.66	J/mol×K	513.73	Joback Method
dvisc	0.0022588	Paxs	291.33	Joback Method
dvisc	0.0002503	Paxs	513.73	Joback Method
dvisc	0.0003132	Paxs	476.66	Joback Method
dvisc	0.0004070	Paxs	439.60	Joback Method
dvisc	0.0005549	Paxs	402.53	Joback Method
dvisc	0.0008058	Paxs	365.46	Joback Method
dvisc	0.0012729	Paxs	328.40	Joback Method
hvapt	52.60	kJ/mol	422.00	NIST Webbook

## 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=C5337939&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C5337939&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>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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