

# trans-1-Phenylcyclohexene

<b>Inchi:</b>	InChI=1S/C12H14/c1-3-7-11(8-4-1)12-9-5-2-6-10-12/h1,3-4,7-9H,2,5-6,10H2
<b>InchiKey:</b>	WCMSFBRREKZZFL-UHFFFAOYSA-N
<b>Formula:</b>	C12H14
<b>SMILES:</b>	C1=C(c2ccccc2)CCCC1
<b>Mol. weight [g/mol]:</b>	158.24
<b>CAS:</b>	71340-36-8

## Physical Properties

Property code	Value	Unit	Source
gf	215.06	kJ/mol	Joback Method
hf	66.49	kJ/mol	Joback Method
hfl	170.00 ± 20.00	kJ/mol	NIST Webbook
hfus	12.47	kJ/mol	Joback Method
hvap	46.27	kJ/mol	Joback Method
log10ws	-3.86		Crippen Method
logp	3.644		Crippen Method
mcvol	141.020	ml/mol	McGowan Method
pc	3156.17	kPa	Joback Method
tb	529.00	K	Joback Method
tc	773.62	K	Joback Method
tf	276.32	K	Joback Method
vc	0.519	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	314.64	J/mol×K	529.00	Joback Method
cpg	333.73	J/mol×K	569.77	Joback Method
cpg	351.42	J/mol×K	610.54	Joback Method
cpg	367.79	J/mol×K	651.31	Joback Method
cpg	382.91	J/mol×K	692.08	Joback Method
cpg	396.85	J/mol×K	732.85	Joback Method
cpg	409.68	J/mol×K	773.62	Joback Method
dvisc	0.0038097	Paxs	276.32	Joback Method

dvisc	0.0016896	Paxs	318.43	Joback Method
dvisc	0.0009061	Paxs	360.55	Joback Method
dvisc	0.0005536	Paxs	402.66	Joback Method
dvisc	0.0003713	Paxs	444.77	Joback Method
dvisc	0.0002668	Paxs	486.89	Joback Method
dvisc	0.0002021	Paxs	529.00	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=C71340368&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C71340368&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>hfl:</b>	Liquid phase 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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