

# Pentacyclo[10.4.4.4<sup>4,9</sup>.0<sup>6,22</sup>

<b>Other names:</b>	Pentacyclo[10.4.4.4 <sup>4,9</sup> .0 <sup>6,22</sup> .0 <sup>15,19</sup> ]tetracosa-2, Pentacyclo[10.4.4.4
<b>Inchi:</b>	InChI=1S/C24H16/c1-2-18-6-10-24-16-20(8-12-23(24)14-18)4-3-19-7-11-21-13-17(1)5-9
<b>InchiKey:</b>	JHRGAKPDZXLBNT-RQJAOWSGSA-N
<b>Formula:</b>	C24H16
<b>SMILES:</b>	<chem>C1=Cc2ccc3cc(ccc3c2)C=Cc2ccc3cc1ccc3c2</chem>
<b>Mol. weight [g/mol]:</b>	304.38
<b>CAS:</b>	43012-17-5

## Physical Properties

Property code	Value	Unit	Source
gf	667.08	kJ/mol	Joback Method
hf	473.17	kJ/mol	Joback Method
hfus	35.89	kJ/mol	Joback Method
hvap	80.48	kJ/mol	Joback Method
ie	7.40	eV	NIST Webbook
log10ws	-8.54		Crippen Method
logp	6.647		Crippen Method
mcvol	243.120	ml/mol	McGowan Method
pc	2123.64	kPa	Joback Method
tb	873.76	K	Joback Method
tc	1148.65	K	Joback Method
tf	548.74	K	Joback Method
vc	0.929	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	697.48	J/molxK	873.76	Joback Method
cpg	713.19	J/molxK	919.57	Joback Method
cpg	728.09	J/molxK	965.39	Joback Method
cpg	742.48	J/molxK	1011.20	Joback Method
cpg	756.64	J/molxK	1057.02	Joback Method
cpg	770.85	J/molxK	1102.83	Joback Method

cpg	785.41	J/mol×K	1148.65	Joback Method
dvisc	0.0014723	Paxs	548.74	Joback Method
dvisc	0.0011347	Paxs	602.91	Joback Method
dvisc	0.0009129	Paxs	657.08	Joback Method
dvisc	0.0007592	Paxs	711.25	Joback Method
dvisc	0.0006481	Paxs	765.42	Joback Method
dvisc	0.0005649	Paxs	819.59	Joback Method
dvisc	0.0005008	Paxs	873.76	Joback Method

## Sources

<b>NIST Webbook:</b>	<a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=C43012175&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C43012175&amp;Units=SI</a>
<b>Crippen Method:</b>	<a href="http://pubs.acs.org/doi/abs/10.1021/ci990307l">http://pubs.acs.org/doi/abs/10.1021/ci990307l</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>

## 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>ie:</b>	Ionization energy
<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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