

# Valeric acid, 2,2-diphenyl-

<b>Other names:</b>	2,2-diphenylvaleric acid
<b>Inchi:</b>	InChI=1S/C17H18O2/c1-2-13-17(16(18)19,14-9-5-3-6-10-14)15-11-7-4-8-12-15/h3-12H,2
<b>InchiKey:</b>	IVYXLCYENQNVHM-UHFFFAOYSA-N
<b>Formula:</b>	C17H18O2
<b>SMILES:</b>	CCCC(C(=O)O)(c1ccccc1)c1ccccc1
<b>Mol. weight [g/mol]:</b>	254.32
<b>CAS:</b>	841-32-7

## Physical Properties

Property code	Value	Unit	Source
gf	54.18	kJ/mol	Joback Method
hf	-194.71	kJ/mol	Joback Method
hfus	26.14	kJ/mol	Joback Method
hvap	80.12	kJ/mol	Joback Method
log10ws	-4.02		Crippen Method
logp	3.857		Crippen Method
mcvol	210.310	ml/mol	McGowan Method
pc	2465.36	kPa	Joback Method
tb	784.54	K	Joback Method
tc	1010.58	K	Joback Method
tf	447.36	K	Joback Method
vc	0.785	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	603.51	J/molxK	784.54	Joback Method
cpg	661.74	J/molxK	972.91	Joback Method
cpg	651.79	J/molxK	935.23	Joback Method
cpg	641.09	J/molxK	897.56	Joback Method
cpg	629.55	J/molxK	859.89	Joback Method
cpg	617.05	J/molxK	822.21	Joback Method
cpg	671.03	J/molxK	1010.58	Joback Method
dvisc	0.0000216	Paxs	784.54	Joback Method

dvisc	0.0000326	Paxs	728.34	Joback Method
dvisc	0.0000527	Paxs	672.15	Joback Method
dvisc	0.0000930	Paxs	615.95	Joback Method
dvisc	0.0001839	Paxs	559.75	Joback Method
dvisc	0.0004235	Paxs	503.56	Joback Method
dvisc	0.0012029	Paxs	447.36	Joback Method

## Sources

<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=C841327&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C841327&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>

## 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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