

# Dodecane, 5,8-diethyl-

<b>Other names:</b>	5,8-Diethyldodecane
<b>Inchi:</b>	InChI=1S/C16H34/c1-5-9-11-15(7-3)13-14-16(8-4)12-10-6-2/h15-16H,5-14H2,1-4H3
<b>InchiKey:</b>	DGQRNAPEPDFOEX-UHFFFAOYSA-N
<b>Formula:</b>	C16H34
<b>SMILES:</b>	CCCCC(CC)CCC(CC)CCCC
<b>Mol. weight [g/mol]:</b>	226.44
<b>CAS:</b>	24251-86-3

## Physical Properties

Property code	Value	Unit	Source
gf	78.96	kJ/mol	Joback Method
hf	-384.13	kJ/mol	Joback Method
hfus	30.15	kJ/mol	Joback Method
hvap	50.43	kJ/mol	Joback Method
log10ws	-6.04		Crippen Method
logp	6.199		Crippen Method
mcvol	236.300	ml/mol	McGowan Method
pc	1333.93	kPa	Joback Method
tb	564.60	K	Joback Method
tc	728.45	K	Joback Method
tf	181.00 ± 5.00	K	NIST Webbook
vc	0.919	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	612.18	J/mol×K	564.60	Joback Method
cpg	632.06	J/mol×K	591.91	Joback Method
cpg	651.14	J/mol×K	619.22	Joback Method
cpg	669.44	J/mol×K	646.53	Joback Method
cpg	686.99	J/mol×K	673.83	Joback Method
cpg	703.80	J/mol×K	701.14	Joback Method
cpg	719.89	J/mol×K	728.45	Joback Method
dvisc	0.0124242	Paxs	240.08	Joback Method

dvisc	0.0029159	Paxs	294.17	Joback Method
dvisc	0.0010735	Paxs	348.25	Joback Method
dvisc	0.0005170	Paxs	402.34	Joback Method
dvisc	0.0002961	Paxs	456.43	Joback Method
dvisc	0.0001908	Paxs	510.51	Joback Method
dvisc	0.0001338	Paxs	564.60	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=C24251863&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C24251863&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>
<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>cp<sub>g</sub>:</b>	Ideal gas heat capacity
<b>dvisc:</b>	Dynamic viscosity
<b>g<sub>f</sub>:</b>	Standard Gibbs free energy of formation
<b>h<sub>f</sub>:</b>	Enthalpy of formation at standard conditions
<b>h<sub>fus</sub>:</b>	Enthalpy of fusion at standard conditions
<b>h<sub>vap</sub>:</b>	Enthalpy of vaporization at standard conditions
<b>log<sub>10</sub>ws:</b>	Log <sub>10</sub> of Water solubility in mol/l
<b>log<sub>p</sub>:</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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