

# Pentacosane, 3,7-dimethyl

<b>Other names:</b>	3,7-dimethyl-pentacosane
<b>Inchi:</b>	InChI=1S/C27H56/c1-5-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-23-27(4)25-22-24-2
<b>InchiKey:</b>	JNZLCLJYXZZJEX-UHFFFAOYSA-N
<b>Formula:</b>	C27H56
<b>SMILES:</b>	CCCCCCCCCCCCCCCCCCCC(C)CCCC(C)CC
<b>Mol. weight [g/mol]:</b>	380.73

## Physical Properties

Property code	Value	Unit	Source
gf	171.58	kJ/mol	Joback Method
hf	-611.17	kJ/mol	Joback Method
hfus	58.64	kJ/mol	Joback Method
hvap	74.92	kJ/mol	Joback Method
log10ws	-10.64		Crippen Method
logp	10.491		Crippen Method
mcvol	391.290	ml/mol	McGowan Method
pc	694.71	kPa	Joback Method
rinpol	2608.50		NIST Webbook
tb	816.28	K	Joback Method
tc	999.37	K	Joback Method
tf	364.05	K	Joback Method
vc	1.536	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1282.57	J/molxK	816.28	Joback Method
cpg	1307.23	J/molxK	846.80	Joback Method
cpg	1330.65	J/molxK	877.31	Joback Method
cpg	1352.88	J/molxK	907.83	Joback Method
cpg	1373.98	J/molxK	938.34	Joback Method
cpg	1394.00	J/molxK	968.86	Joback Method
cpg	1412.98	J/molxK	999.37	Joback Method
dvisc	0.0027479	Paxs	364.05	Joback Method

dvisc	0.0006915	Paxs	439.42	Joback Method
dvisc	0.0002606	Paxs	514.79	Joback Method
dvisc	0.0001260	Paxs	590.16	Joback Method
dvisc	0.0000719	Paxs	665.54	Joback Method
dvisc	0.0000459	Paxs	740.91	Joback Method
dvisc	0.0000319	Paxs	816.28	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=R195327&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=R195327&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>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>rinpol:</b>	Non-polar retention indices
<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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