

# 3-methyl-triacontane

**Inchi:** InChI=1S/C31H64/c1-4-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26-27-28-29-30-31  
**InchiKey:** NXCMTLDSKYDELZ-UHFFFAOYSA-N  
**Formula:** C31H64  
**SMILES:** CCCCCCCCCCCCCCCCCCCCCCCCCCCCC(C)CC  
**Mol. weight [g/mol]:** 436.84  
**CAS:** 72227-01-1

## Physical Properties

Property code	Value	Unit	Source
gf	207.70	kJ/mol	Joback Method
hf	-688.45	kJ/mol	Joback Method
hfus	72.52	kJ/mol	Joback Method
hvap	84.21	kJ/mol	Joback Method
log10ws	-12.56		Crippen Method
logp	12.195		Crippen Method
mcvol	447.650	ml/mol	McGowan Method
pc	570.69	kPa	Joback Method
rinpol	3078.00		NIST Webbook
rinpol	3078.00		NIST Webbook
rinpol	3075.00		NIST Webbook
rinpol	3064.00		NIST Webbook
rinpol	3066.00		NIST Webbook
rinpol	3075.00		NIST Webbook
rinpol	3072.90		NIST Webbook
rinpol	3078.00		NIST Webbook
tb	908.24	K	Joback Method
tc	1122.22	K	Joback Method
tf	424.13	K	Joback Method
vc	1.766	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1550.16	J/mol×K	908.24	Joback Method

cpg	1578.28	J/molxK	943.90	Joback Method
cpg	1604.74	J/molxK	979.57	Joback Method
cpg	1629.63	J/molxK	1015.23	Joback Method
cpg	1653.05	J/molxK	1050.89	Joback Method
cpg	1675.10	J/molxK	1086.56	Joback Method
cpg	1695.88	J/molxK	1122.22	Joback Method
dvisc	0.0011568	Paxs	424.13	Joback Method
dvisc	0.0003377	Paxs	504.81	Joback Method
dvisc	0.0001384	Paxs	585.50	Joback Method
dvisc	0.0000704	Paxs	666.18	Joback Method
dvisc	0.0000415	Paxs	746.87	Joback Method
dvisc	0.0000271	Paxs	827.56	Joback Method
dvisc	0.0000191	Paxs	908.24	Joback Method

## Sources

<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>
<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=C72227011&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C72227011&amp;Units=SI</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

**vc:** Critical Volume

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