

# Cyclotriacontane

**Inchi:** InChI=1S/C30H60/c1-2-4-6-8-10-12-14-16-18-20-22-24-26-28-30-29-27-25-23-21-19-17-15-13-11-9-7-5-3-1  
**InchiKey:** RPRAXXJCTCCPOZ-UHFFFAOYSA-N  
**Formula:** C30H60  
**SMILES:** C1CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC1  
**Mol. weight [g/mol]:** 420.80  
**CAS:** 297-35-8

## Physical Properties

Property code	Value	Unit	Source
chs	-19484.00 ± 29.00	kJ/mol	NIST Webbook
gf	-56.52	kJ/mol	Joback Method
hf	-735.71	kJ/mol	Joback Method
hfus	13.82	kJ/mol	Joback Method
hvap	87.24	kJ/mol	Joback Method
log10ws	-12.27		Crippen Method
logp	11.703		Crippen Method
mcvol	422.700	ml/mol	McGowan Method
pc	940.95	kPa	Joback Method
tb	1012.50	K	Joback Method
tc	1292.28	K	Joback Method
tf	331.00 ± 4.00	K	NIST Webbook
tf	331.00 ± 4.00	K	NIST Webbook
vc	1.458	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1594.26	J/mol×K	1012.50	Joback Method
cpg	1612.43	J/mol×K	1059.13	Joback Method
cpg	1623.24	J/mol×K	1105.76	Joback Method
cpg	1626.48	J/mol×K	1152.39	Joback Method
cpg	1621.96	J/mol×K	1199.02	Joback Method
cpg	1609.47	J/mol×K	1245.65	Joback Method
cpg	1588.81	J/mol×K	1292.28	Joback Method

dvisc	0.0082680	Paxs	355.00	Joback Method
dvisc	0.0000268	Paxs	464.58	Joback Method
dvisc	0.0000008	Paxs	574.17	Joback Method
dvisc	6.9561512e-08	Paxs	683.75	Joback Method
dvisc	1.2172488e-08	Paxs	793.33	Joback Method
dvisc	3.2518855e-09	Paxs	902.92	Joback Method
dvisc	1.1560485e-09	Paxs	1012.50	Joback Method

## Sources

<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=C297358&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C297358&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>

## Legend

<b>chs:</b>	Standard solid enthalpy of combustion
<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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