

# 1-Docosene

<b>Other names:</b>	Docos-1-ene
<b>Inchi:</b>	InChI=1S/C22H44/c1-3-5-7-9-11-13-15-17-19-21-22-20-18-16-14-12-10-8-6-4-2/h3H,1,4
<b>InchiKey:</b>	SPURMHFLEKVAAS-UHFFFAOYSA-N
<b>Formula:</b>	C22H44
<b>SMILES:</b>	C=CCCCCCCCCCCCCCCCCCCCC
<b>Mol. weight [g/mol]:</b>	308.58
<b>CAS:</b>	1599-67-3

## Physical Properties

Property code	Value	Unit	Source
gf	222.20	kJ/mol	Joback Method
hf	-371.98	kJ/mol	Joback Method
hfus	51.46	kJ/mol	Joback Method
hvap	63.90	kJ/mol	Joback Method
log10ws	-8.89		Crippen Method
logp	8.604		Crippen Method
mcvol	316.540	ml/mol	McGowan Method
pc	924.99	kPa	Joback Method
rinpol	2192.00		NIST Webbook
rinpol	2190.00		NIST Webbook
rinpol	2194.00		NIST Webbook
rinpol	2195.00		NIST Webbook
rinpol	2196.00		NIST Webbook
rinpol	2188.00		NIST Webbook
rinpol	2194.00		NIST Webbook
rinpol	2194.00		NIST Webbook
rinpol	2188.00		NIST Webbook
rinpol	2192.00		NIST Webbook
rinpol	2192.00		NIST Webbook
rinpol	2192.00		NIST Webbook
rinpol	2192.00		NIST Webbook
rinpol	2195.00		NIST Webbook
rinpol	2191.00		NIST Webbook
rinpol	2194.00		NIST Webbook
rinpol	2188.00		NIST Webbook
rinpol	2191.00		NIST Webbook
rinpol	2200.00		NIST Webbook
rinpol	2189.00		NIST Webbook

rinpol	2188.00		NIST Webbook
rinpol	2195.00		NIST Webbook
rinpol	2195.00		NIST Webbook
rinpol	2195.00		NIST Webbook
rinpol	2195.00		NIST Webbook
rinpol	2196.00		NIST Webbook
rinpol	2188.00		NIST Webbook
tb	699.44	K	Joback Method
tc	863.97	K	Joback Method
tf	335.94	K	Joback Method
vc	1.248	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1051.78	J/molxK	863.97	Joback Method
cpg	1034.74	J/molxK	836.55	Joback Method
cpg	1016.91	J/molxK	809.13	Joback Method
cpg	998.26	J/molxK	781.71	Joback Method
cpg	978.76	J/molxK	754.28	Joback Method
cpg	958.37	J/molxK	726.86	Joback Method
cpg	937.06	J/molxK	699.44	Joback Method
dvisc	0.0028670	Paxs	335.94	Joback Method
dvisc	0.0000796	Paxs	699.44	Joback Method
dvisc	0.0001090	Paxs	638.86	Joback Method
dvisc	0.0001593	Paxs	578.27	Joback Method
dvisc	0.0002546	Paxs	517.69	Joback Method
dvisc	0.0004608	Paxs	457.11	Joback Method
dvisc	0.0009996	Paxs	396.52	Joback Method
hvapt	95.60	kJ/mol	520.50	NIST Webbook

## Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.43726e+01
Coeff. B	-4.59006e+03

Coeff. C	-1.61534e+02
Temperature range (K), min.	487.42
Temperature range (K), max.	668.10

## 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=C1599673&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C1599673&amp;Units=SI</a>
<b>The Yaws Handbook of Vapor Pressure:</b>	<a href="https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure">https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure</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>h vap:</b>	Enthalpy of vaporization at standard conditions
<b>hvapt:</b>	Enthalpy of vaporization at a given temperature
<b>log10ws:</b>	Log10 of Water solubility in mol/l
<b>logp:</b>	Octanol/Water partition coefficient
<b>m cvol:</b>	McGowan's characteristic volume
<b>pc:</b>	Critical Pressure
<b>pvap:</b>	Vapor pressure
<b>r inpol:</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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