

# 1,21-Docosadiene

<b>Other names:</b>	docosa-1,21-diene
<b>Inchi:</b>	InChI=1S/C22H42/c1-3-5-7-9-11-13-15-17-19-21-22-20-18-16-14-12-10-8-6-4-2/h3-4H,1
<b>InchiKey:</b>	RBJABTJRYMHYOP-UHFFFAOYSA-N
<b>Formula:</b>	C22H42
<b>SMILES:</b>	C=CCCCCCCCCCCCCCCCCCC=C
<b>Mol. weight [g/mol]:</b>	306.57
<b>CAS:</b>	53057-53-7

## Physical Properties

Property code	Value	Unit	Source
gf	310.04	kJ/mol	Joback Method
hf	-246.55	kJ/mol	Joback Method
hfus	50.18	kJ/mol	Joback Method
hvap	63.23	kJ/mol	Joback Method
log10ws	-8.74		Crippen Method
logp	8.380		Crippen Method
mcvol	312.240	ml/mol	McGowan Method
pc	949.08	kPa	Joback Method
tb	696.12	K	Joback Method
tc	861.55	K	Joback Method
tf	304.00 ± 3.00	K	NIST Webbook
tf	303.40 ± 2.00	K	NIST Webbook
vc	1.230	m3/kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	912.26	J/molxK	696.12	Joback Method
cpg	933.08	J/molxK	723.69	Joback Method
cpg	952.98	J/molxK	751.26	Joback Method
cpg	972.00	J/molxK	778.83	Joback Method
cpg	990.19	J/molxK	806.40	Joback Method
cpg	1007.58	J/molxK	833.98	Joback Method
cpg	1024.19	J/molxK	861.55	Joback Method

dvisc	0.0027872	Paxs	334.18	Joback Method
dvisc	0.0009948	Paxs	394.50	Joback Method
dvisc	0.0004666	Paxs	454.83	Joback Method
dvisc	0.0002613	Paxs	515.15	Joback Method
dvisc	0.0001653	Paxs	575.47	Joback Method
dvisc	0.0001140	Paxs	635.80	Joback Method
dvisc	0.0000839	Paxs	696.12	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=C53057537&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C53057537&amp;Units=SI</a>
<b>Crippen Method:</b>	<a href="http://pubs.acs.org/doi/abs/10.1021/ci990307l">http://pubs.acs.org/doi/abs/10.1021/ci990307l</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>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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