

# 3-Dodecene, (Z)-

<b>Other names:</b>	(3Z)-3-Dodecene (Z)-3-dodecene cis-3-Dodecene
<b>Inchi:</b>	InChI=1S/C12H24/c1-3-5-7-9-11-12-10-8-6-4-2/h5,7H,3-4,6,8-12H2,1-2H3/b7-5-
<b>InchiKey:</b>	WLTSXAIICPDFKI-ALCCZGGFSA-N
<b>Formula:</b>	C12H24
<b>SMILES:</b>	CCC=CCCCCCCC
<b>Mol. weight [g/mol]:</b>	168.32
<b>CAS:</b>	7239-23-8

## Physical Properties

Property code	Value	Unit	Source
gf	130.38	kJ/mol	Joback Method
hf	-173.79	kJ/mol	Joback Method
hfus	27.04	kJ/mol	Joback Method
hvap	42.26	kJ/mol	Joback Method
log10ws	-4.70		Crippen Method
logp	4.703		Crippen Method
mcvol	175.640	ml/mol	McGowan Method
pc	1861.11	kPa	Joback Method
rinpol	1185.70		NIST Webbook
rinpol	1195.00		NIST Webbook
rinpol	1184.10		NIST Webbook
rinpol	1186.20		NIST Webbook
rinpol	1195.00		NIST Webbook
rinpol	1191.30		NIST Webbook
rinpol	1184.00		NIST Webbook
rinpol	1186.00		NIST Webbook
rinpol	1186.00		NIST Webbook
rinpol	1185.00		NIST Webbook
rinpol	1196.00		NIST Webbook
rinpol	1185.00		NIST Webbook
rinpol	1195.00		NIST Webbook
rinpol	1185.00		NIST Webbook
rinpol	1195.00		NIST Webbook
rinpol	1195.00		NIST Webbook
rinpol	1185.10		NIST Webbook

ripol	1254.00		NIST Webbook
ripol	1254.00		NIST Webbook
ripol	1255.70		NIST Webbook
ripol	1254.10		NIST Webbook
ripol	1255.70		NIST Webbook
ripol	1257.00		NIST Webbook
ripol	1254.10		NIST Webbook
ripol	1256.00		NIST Webbook
ripol	1254.00		NIST Webbook
ripol	1252.00		NIST Webbook
ripol	1246.00		NIST Webbook
ripol	1250.00		NIST Webbook
ripol	1254.00		NIST Webbook
ripol	1249.00		NIST Webbook
ripol	1248.00		NIST Webbook
ripol	1247.00		NIST Webbook
ripol	1247.00		NIST Webbook
ripol	1257.00		NIST Webbook
ripol	1256.00		NIST Webbook
ripol	1253.00		NIST Webbook
ripol	1252.00		NIST Webbook
tb	478.12	K	Joback Method
tc	646.19	K	Joback Method
tf	219.92	K	Joback Method
vc	0.688	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	390.87	J/molxK	478.12	Joback Method
cpg	407.46	J/molxK	506.13	Joback Method
cpg	423.37	J/molxK	534.14	Joback Method
cpg	438.60	J/molxK	562.15	Joback Method
cpg	453.18	J/molxK	590.16	Joback Method
cpg	467.15	J/molxK	618.17	Joback Method
cpg	480.52	J/molxK	646.19	Joback Method
dvisc	0.0058071	Paxs	219.92	Joback Method
dvisc	0.0020237	Paxs	262.95	Joback Method
dvisc	0.0009486	Paxs	305.99	Joback Method
dvisc	0.0005360	Paxs	349.02	Joback Method
dvisc	0.0003433	Paxs	392.05	Joback Method

dvisc	0.0002402	Paxs	435.09	Joback Method
dvisc	0.0001792	Paxs	478.12	Joback Method

## Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.45552e+01
Coeff. B	-3.87121e+03
Coeff. C	-9.08680e+01
Temperature range (K), min.	362.20
Temperature range (K), max.	509.66

## Sources

<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>
<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=C7239238&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C7239238&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>pvap:</b>	Vapor pressure
<b>rinpol:</b>	Non-polar retention indices
<b>ripol:</b>	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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