

# 3-Octene, (Z)-

<b>Other names:</b>	(3Z)-3-Octene (Z)-3-C8H16 (Z)-3-OCTENE (Z)-Oct-3-ene CIS-3-OCTENE
<b>Inchi:</b>	InChI=1S/C8H16/c1-3-5-7-8-6-4-2/h5,7H,3-4,6,8H2,1-2H3/b7-5-
<b>InchiKey:</b>	YCTDZYMMFQCTEO-ALCCZGGFSA-N
<b>Formula:</b>	C8H16
<b>SMILES:</b>	CCC=CCCC
<b>Mol. weight [g/mol]:</b>	112.21
<b>CAS:</b>	14850-22-7

## Physical Properties

Property code	Value	Unit	Source
gf	96.70	kJ/mol	Joback Method
hf	-91.23	kJ/mol	Joback Method
hfus	16.68	kJ/mol	Joback Method
hvap	39.70	kJ/mol	NIST Webbook
ie	9.05 ± 0.01	eV	NIST Webbook
ie	8.86 ± 0.01	eV	NIST Webbook
ie	8.85 ± 0.01	eV	NIST Webbook
log10ws	-3.02		Crippen Method
logp	3.143		Crippen Method
mcvol	119.280	ml/mol	McGowan Method
pc	2673.54	kPa	Joback Method
rinpole	798.00		NIST Webbook
rinpole	790.00		NIST Webbook
rinpole	798.00		NIST Webbook
rinpole	798.00		NIST Webbook
rinpole	797.70		NIST Webbook
rinpole	799.00		NIST Webbook
rinpole	790.00		NIST Webbook
rinpole	799.00		NIST Webbook
rinpole	799.00		NIST Webbook
rinpole	799.00		NIST Webbook
rinpole	799.00		NIST Webbook
rinpole	799.00		NIST Webbook
rinpole	798.00		NIST Webbook

rinpol	799.00		NIST Webbook
rinpol	794.00		NIST Webbook
rinpol	794.00		NIST Webbook
rinpol	788.70		NIST Webbook
rinpol	786.90		NIST Webbook
rinpol	790.00		NIST Webbook
rinpol	790.00		NIST Webbook
rinpol	796.00		NIST Webbook
rinpol	788.70		NIST Webbook
rinpol	789.00		NIST Webbook
rinpol	790.20		NIST Webbook
rinpol	789.50		NIST Webbook
rinpol	790.00		NIST Webbook
rinpol	811.00		NIST Webbook
rinpol	799.00		NIST Webbook
rinpol	799.00		NIST Webbook
rinpol	800.00		NIST Webbook
rinpol	790.00		NIST Webbook
ripol	859.00		NIST Webbook
ripol	859.40		NIST Webbook
ripol	859.00		NIST Webbook
ripol	858.10		NIST Webbook
ripol	853.90		NIST Webbook
ripol	859.40		NIST Webbook
ripol	854.00		NIST Webbook
ripol	854.00		NIST Webbook
ripol	859.40		NIST Webbook
ripol	858.00		NIST Webbook
ripol	854.00		NIST Webbook
ripol	854.00		NIST Webbook
ripol	861.00		NIST Webbook
ripol	853.90		NIST Webbook
ripol	858.10		NIST Webbook
tb	394.95 ± 0.50	K	NIST Webbook
tb	395.85 ± 0.50	K	NIST Webbook
tb	396.04 ± 0.20	K	NIST Webbook
tb	396.10	K	NIST Webbook
tc	558.45	K	Joback Method
tf	147.15 ± 1.50	K	NIST Webbook
tf	147.00 ± 2.00	K	NIST Webbook
vc	0.464	m3/kmol	Joback Method

# Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	218.05	J/molxK	386.60	Joback Method
cpg	277.26	J/molxK	529.81	Joback Method
cpg	266.43	J/molxK	501.17	Joback Method
cpg	255.11	J/molxK	472.53	Joback Method
cpg	243.29	J/molxK	443.88	Joback Method
cpg	230.94	J/molxK	415.24	Joback Method
cpg	287.62	J/molxK	558.45	Joback Method
dvisc	0.0002015	Paxs	386.60	Joback Method
dvisc	0.0002641	Paxs	351.31	Joback Method
dvisc	0.0003675	Paxs	316.01	Joback Method
dvisc	0.0005559	Paxs	280.72	Joback Method
dvisc	0.0009470	Paxs	245.43	Joback Method
dvisc	0.0019294	Paxs	210.13	Joback Method
dvisc	0.0052396	Paxs	174.84	Joback Method

## Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.43504e+01
Coeff. B	-3.37387e+03
Coeff. C	-4.94240e+01
Temperature range (K), min.	289.34
Temperature range (K), max.	422.68

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/T + C \cdot \ln(T) + D \cdot T^2$
Coeff. A	9.49548e+01
Coeff. B	-7.90385e+03
Coeff. C	-1.20056e+01
Coeff. D	9.12957e-06
Temperature range (K), min.	288.15

## 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>KDB:</b>	<a href="https://www.thermopedia.com/research/kdb/hcprop/showprop.php?cmpid=252">https://www.thermopedia.com/research/kdb/hcprop/showprop.php?cmpid=252</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=C14850227&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C14850227&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>
<b>KDB Vapor Pressure Data:</b>	<a href="https://www.thermopedia.com/research/kdb/hcprop/showprop.php?cmpid=252">https://www.thermopedia.com/research/kdb/hcprop/showprop.php?cmpid=252</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>ie:</b>	Ionization energy
<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>rinpolar:</b>	Non-polar retention indices
<b>ripolar:</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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