

# 1,trans-5-octadiene

<b>Other names:</b>	1,5-Octadiene, (E)
<b>Inchi:</b>	InChI=1S/C8H14/c1-3-5-7-8-6-4-2/h3,6,8H,1,4-5,7H2,2H3/b8-6-
<b>InchiKey:</b>	HITROERJXNWVOI-VURMDHGXSA-N
<b>Formula:</b>	C8H14
<b>SMILES:</b>	C=CCCC=CCC
<b>Mol. weight [g/mol]:</b>	110.20

## Physical Properties

Property code	Value	Unit	Source
gf	184.54	kJ/mol	Joback Method
hf	34.20	kJ/mol	Joback Method
hfus	15.40	kJ/mol	Joback Method
hvap	32.69	kJ/mol	Joback Method
log10ws	-2.88		Crippen Method
logp	2.919		Crippen Method
mcvol	114.980	ml/mol	McGowan Method
pc	2793.56	kPa	Joback Method
rinpol	768.30		NIST Webbook
rinpol	772.60		NIST Webbook
rinpol	769.60		NIST Webbook
rinpol	769.00		NIST Webbook
rinpol	768.30		NIST Webbook
tb	383.28	K	Joback Method
tc	558.73	K	Joback Method
tf	173.08	K	Joback Method
vc	0.445	m3/kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	203.47	J/molxK	383.28	Joback Method
cpg	215.81	J/molxK	412.52	Joback Method
cpg	227.59	J/molxK	441.76	Joback Method
cpg	238.82	J/molxK	471.01	Joback Method

cpg	249.52	J/molxK	500.25	Joback Method
cpg	259.71	J/molxK	529.49	Joback Method
cpg	269.43	J/molxK	558.73	Joback Method
dvisc	0.0043022	Paxs	173.08	Joback Method
dvisc	0.0016670	Paxs	208.11	Joback Method
dvisc	0.0008489	Paxs	243.15	Joback Method
dvisc	0.0005124	Paxs	278.18	Joback Method
dvisc	0.0003462	Paxs	313.21	Joback Method
dvisc	0.0002531	Paxs	348.25	Joback Method
dvisc	0.0001960	Paxs	383.28	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=R138200&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=R138200&amp;Units=SI</a>
<b>Crippen Method:</b>	<a href="http://pubs.acs.org/doi/abs/10.1021/ci990307I">http://pubs.acs.org/doi/abs/10.1021/ci990307I</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>rinpol:</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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