

3-Ethyl-1,5-octadiene

Other names:	3-ethylocta-1,5-diene 1,5-Octadiene, 3-ethyl 1,5-Octadiene, 3-ethyl (E or Z)
Inchi:	InChI=1S/C10H18/c1-4-7-8-9-10(5-2)6-3/h5,7-8,10H,2,4,6,9H2,1,3H3/b8-7+
InchiKey:	DXYBMKOHVHUXNV-BQYQJAHWSA-N
Formula:	C10H18
SMILES:	C=CC(CC)CC=CCC
Mol. weight [g/mol]:	138.25

Physical Properties

Property code	Value	Unit	Source
gf	198.94	kJ/mol	Joback Method
hf	-12.36	kJ/mol	Joback Method
hfus	17.06	kJ/mol	Joback Method
hvap	36.75	kJ/mol	Joback Method
log10ws	-3.47		Crippen Method
logp	3.555		Crippen Method
mcvol	143.160	ml/mol	McGowan Method
pc	2320.31	kPa	Joback Method
rinpol	938.00		NIST Webbook
rinpol	930.00		NIST Webbook
rinpol	937.00		NIST Webbook
rinpol	947.00		NIST Webbook
rinpol	939.00		NIST Webbook
rinpol	932.00		NIST Webbook
rinpol	939.00		NIST Webbook
rinpol	932.00		NIST Webbook
rinpol	939.00		NIST Webbook
rinpol	932.00		NIST Webbook
rinpol	931.00		NIST Webbook
rinpol	947.00		NIST Webbook
ripol	1017.00		NIST Webbook
ripol	1006.00		NIST Webbook
ripol	1018.00		NIST Webbook
ripol	1012.00		NIST Webbook
ripol	1027.00		NIST Webbook
ripol	1013.00		NIST Webbook

tb	428.60	K	Joback Method
tc	606.13	K	Joback Method
tf	180.62	K	Joback Method
vc	0.550	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	284.09	J/mol×K	428.60	Joback Method
cpg	298.96	J/mol×K	458.19	Joback Method
cpg	313.14	J/mol×K	487.78	Joback Method
cpg	326.65	J/mol×K	517.36	Joback Method
cpg	339.54	J/mol×K	546.95	Joback Method
cpg	351.81	J/mol×K	576.54	Joback Method
cpg	363.50	J/mol×K	606.13	Joback Method
dvisc	0.0087656	Pa×s	180.62	Joback Method
dvisc	0.0025414	Pa×s	221.95	Joback Method
dvisc	0.0010869	Pa×s	263.28	Joback Method
dvisc	0.0005853	Pa×s	304.61	Joback Method
dvisc	0.0003655	Pa×s	345.94	Joback Method
dvisc	0.0002523	Pa×s	387.27	Joback Method
dvisc	0.0001871	Pa×s	428.60	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U114877&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Joback Method:	https://en.wikipedia.org/wiki/Joback_method

Legend

cpg:	Ideal gas heat capacity
dvisc:	Dynamic viscosity
gf:	Standard Gibbs free energy of formation

hf:	Enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hvac:	Enthalpy of vaporization at standard conditions
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
rinpol:	Non-polar retention indices
ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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