

# (E)-6-Methylhept-3-ene

<b>Other names:</b>	3-Heptene, 6-methyl-, (E)- 6-Methyl-trans-3-heptene
<b>Inchi:</b>	InChI=1S/C8H16/c1-4-5-6-7-8(2)3/h5-6,8H,4,7H2,1-3H3/b6-5+
<b>InchiKey:</b>	PMPISKBGRHSPEE-AATRIKPKSA-N
<b>Formula:</b>	C8H16
<b>SMILES:</b>	CCC=CCC(C)C
<b>Mol. weight [g/mol]:</b>	112.21
<b>CAS:</b>	66225-20-5

## Physical Properties

Property code	Value	Unit	Source
gf	94.26	kJ/mol	Joback Method
hf	-96.51	kJ/mol	Joback Method
hfus	13.15	kJ/mol	Joback Method
hvap	38.90	kJ/mol	NIST Webbook
log10ws	-2.78		Crippen Method
logp	2.999		Crippen Method
mcvol	119.280	ml/mol	McGowan Method
pc	2695.80	kPa	Joback Method
rinpol	747.80		NIST Webbook
rinpol	749.00		NIST Webbook
rinpol	759.80		NIST Webbook
tb	386.16	K	Joback Method
tc	562.05	K	Joback Method
tf	159.84	K	Joback Method
vc	0.458	m3/kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	217.94	J/molxK	386.16	Joback Method
cpg	231.23	J/molxK	415.47	Joback Method
cpg	243.94	J/molxK	444.79	Joback Method
cpg	256.10	J/molxK	474.10	Joback Method

cpg	267.72	J/mol×K	503.42	Joback Method
cpg	278.83	J/mol×K	532.73	Joback Method
cpg	289.43	J/mol×K	562.05	Joback Method
dvisc	0.0101457	Paxs	159.84	Joback Method
dvisc	0.0028001	Paxs	197.56	Joback Method
dvisc	0.0011677	Paxs	235.28	Joback Method
dvisc	0.0006201	Paxs	273.00	Joback Method
dvisc	0.0003840	Paxs	310.72	Joback Method
dvisc	0.0002638	Paxs	348.44	Joback Method
dvisc	0.0001950	Paxs	386.16	Joback Method

## Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.37634e+01
Coeff. B	-3.15867e+03
Coeff. C	-4.79560e+01
Temperature range (K), min.	282.35
Temperature range (K), max.	421.68

## Sources

**The Yaws Handbook of Vapor Pressure:**  
Crippen Method:

<https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure>  
<http://pubs.acs.org/doi/abs/10.1021/ci990307l>

**Crippen Method:**

[https://www.chemeo.com/doc/models/crippen\\_log10ws](https://www.chemeo.com/doc/models/crippen_log10ws)

**Joback Method:**

[https://en.wikipedia.org/wiki/Joback\\_method](https://en.wikipedia.org/wiki/Joback_method)

**McGowan Method:**

<http://link.springer.com/article/10.1007/BF02311772>

**NIST Webbook:**

<http://webbook.nist.gov/cgi/cbook.cgi?ID=C66225205&Units=SI>

## Legend

**cpg:** Ideal gas heat capacity  
**dvisc:** Dynamic viscosity  
**gf:** 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>h vap:</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>r inpol:</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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