

# 2-Pentene

<b>Other names:</b>	2-Pentene,c&t 3-Pentene CH <sub>3</sub> CH=CHC <sub>2</sub> H <sub>5</sub> Methylethylethylene Pent-2-ene s-Methylethylethylene sym-Methylethylethylene «beta»-n-Amylene Â«betaÂ»-n-Amylene
<b>Inchi:</b>	InChI=1S/C5H10/c1-3-5-4-2/h3,5H,4H2,1-2H3
<b>InchiKey:</b>	QMMOXUPEWRXHJS-UHFFFAOYSA-N
<b>Formula:</b>	C <sub>5</sub> H <sub>10</sub>
<b>SMILES:</b>	CC=CCC
<b>Mol. weight [g/mol]:</b>	70.13
<b>CAS:</b>	109-68-2

## Physical Properties

Property code	Value	Unit	Source
gf	71.44	kJ/mol	Joback Method
hf	-29.31	kJ/mol	Joback Method
hfus	8.91	kJ/mol	Joback Method
hvap	26.68	kJ/mol	Joback Method
log10ws	-1.77		Crippen Method
logp	1.973		Crippen Method
mcvol	77.010	ml/mol	McGowan Method
pc	3690.97	kPa	Joback Method
rinpol	503.00		NIST Webbook
rinpol	522.00		NIST Webbook
ripol	522.00		NIST Webbook
ripol	558.00		NIST Webbook
tb	310.00 ± 3.00	K	NIST Webbook
tb	309.70 ± 1.00	K	NIST Webbook
tb	309.60 ± 0.40	K	NIST Webbook
tb	310.20	K	NIST Webbook
tb	309.85 ± 0.30	K	NIST Webbook
tb	309.30 ± 1.00	K	NIST Webbook
tb	309.65 ± 2.00	K	NIST Webbook

tb	309.55 ± 0.30	K	NIST Webbook
tb	309.50 ± 0.60	K	NIST Webbook
tb	309.55 ± 0.15	K	NIST Webbook
tb	309.70 ± 1.50	K	NIST Webbook
tb	309.60 ± 1.00	K	NIST Webbook
tb	309.70 ± 2.00	K	NIST Webbook
tb	309.60 ± 0.20	K	NIST Webbook
tc	489.90	K	Joback Method
tf	126.00 ± 2.00	K	NIST Webbook
tf	135.00 ± 3.00	K	NIST Webbook
vc	0.295	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	121.16	J/mol×K	346.62	Joback Method
cpg	112.28	J/mol×K	317.96	Joback Method
cpg	160.11	J/mol×K	489.90	Joback Method
cpg	153.01	J/mol×K	461.24	Joback Method
cpg	145.57	J/mol×K	432.58	Joback Method
cpg	137.80	J/mol×K	403.93	Joback Method
cpg	129.66	J/mol×K	375.27	Joback Method
cpl	151.13	J/mol×K	289.10	NIST Webbook
cpl	195.80	J/mol×K	298.00	NIST Webbook
dvisc	0.0001682	Paxs	317.96	Joback Method
dvisc	0.0002146	Paxs	288.47	Joback Method
dvisc	0.0002894	Paxs	258.98	Joback Method
dvisc	0.0004214	Paxs	229.50	Joback Method
dvisc	0.0006855	Paxs	200.01	Joback Method
dvisc	0.0013197	Paxs	170.52	Joback Method
dvisc	0.0033409	Paxs	141.03	Joback Method

## Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.44152e+01

Coeff. B	-2.77533e+03
Coeff. C	-2.64130e+01
Temperature range (K), min.	222.86
Temperature range (K), max.	331.27

## 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>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=C109682&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C109682&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>

## Legend

<b>cpg:</b>	Ideal gas heat capacity
<b>cpl:</b>	Liquid phase 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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