

# 1-Butene, 1-chloro-, (Z)-

<b>Other names:</b>	(1Z)-1-Chloro-1-butene (Z)-1-Chloro-1-butene (Z)-1-Chlorobut-1-ene cis-1-Chloro-1-butene
<b>Inchi:</b>	InChI=1S/C4H7Cl/c1-2-3-4-5/h3-4H,2H2,1H3/b4-3-
<b>InchiKey:</b>	DUDKKPVINWLFBI-ARJAWSKDSA-N
<b>Formula:</b>	C4H7Cl
<b>SMILES:</b>	CCC=CCl
<b>Mol. weight [g/mol]:</b>	90.55
<b>CAS:</b>	7611-86-1

## Physical Properties

Property code	Value	Unit	Source
gf	51.09	kJ/mol	Joback Method
hf	-19.20	kJ/mol	NIST Webbook
hfus	10.51	kJ/mol	Joback Method
hvap	28.84	kJ/mol	Joback Method
log10ws	-2.00		Crippen Method
logp	2.149		Crippen Method
mcvol	75.160	ml/mol	McGowan Method
pc	3970.51	kPa	Joback Method
tb	336.70	K	NIST Webbook
tb	336.65 ± 1.00	K	NIST Webbook
tb	336.65 ± 1.00	K	NIST Webbook
tc	514.66	K	Joback Method
tf	159.68	K	Joback Method
vc	0.288	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	104.96	J/mol×K	332.51	Joback Method
cpg	112.16	J/mol×K	362.87	Joback Method
cpg	118.99	J/mol×K	393.23	Joback Method

cpg	125.48	J/mol×K	423.59	Joback Method
cpg	131.63	J/mol×K	453.95	Joback Method
cpg	137.47	J/mol×K	484.30	Joback Method
cpg	143.01	J/mol×K	514.66	Joback Method
dvisc	0.0033962	Paxs	159.68	Joback Method
dvisc	0.0015278	Paxs	188.49	Joback Method
dvisc	0.0008494	Paxs	217.29	Joback Method
dvisc	0.0005418	Paxs	246.09	Joback Method
dvisc	0.0003798	Paxs	274.90	Joback Method
dvisc	0.0002848	Paxs	303.70	Joback Method
dvisc	0.0002244	Paxs	332.51	Joback Method

## Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.33615e+01
Coeff. B	-2.23340e+03
Coeff. C	-8.12550e+01
Temperature range (K), min.	252.08
Temperature range (K), max.	358.70

## Sources

**The Yaws Handbook of Vapor**

**Pressure:**

**Crippen Method:**

**Crippen Method:**

**Joback Method:**

**McGowan Method:**

**NIST Webbook:**

<https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure>

<http://pubs.acs.org/doi/abs/10.1021/ci9903071>

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

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

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

<http://webbook.nist.gov/cgi/cbook.cgi?ID=C7611861&Units=SI>

## Legend

**cpg:** Ideal gas heat capacity

**dvisc:** 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>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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