

2-Butene, 2-chloro-

Other names:	2-Chloro-2-butene 2-Chloro-2-butene(cis-trans) 2-chlorobut-2-ene
Inchi:	InChI=1S/C4H7Cl/c1-3-4(2)5/h3H,1-2H3
InchiKey:	DSDHFHLZEFQSFM-UHFFFAOYSA-N
Formula:	C4H7Cl
SMILES:	CC=C(C)Cl
Mol. weight [g/mol]:	90.55
CAS:	4461-41-0

Physical Properties

Property code	Value	Unit	Source
gf	42.54	kJ/mol	Joback Method
hf	-34.20	kJ/mol	Joback Method
hfus	9.21	kJ/mol	Joback Method
hvap	28.92	kJ/mol	Joback Method
log10ws	-2.00		Crippen Method
logp	2.149		Crippen Method
mcvol	75.160	ml/mol	McGowan Method
pc	3995.65	kPa	Joback Method
tb	337.70	K	NIST Webbook
tc	518.49	K	Joback Method
tf	145.72	K	Joback Method
vc	0.289	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	105.03	J/mol×K	332.39	Joback Method
cpg	112.34	J/mol×K	363.41	Joback Method
cpg	119.28	J/mol×K	394.42	Joback Method
cpg	125.86	J/mol×K	425.44	Joback Method
cpg	132.09	J/mol×K	456.45	Joback Method
cpg	137.99	J/mol×K	487.47	Joback Method

cpg

143.59

J/mol×K

518.49

Joback Method

Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.54278e+01
Coeff. B	-3.27185e+03
Coeff. C	-3.50170e+01
Temperature range (K), min.	251.12
Temperature range (K), max.	358.44

Sources

Crippen Method:

https://www.chemeo.com/doc/models/crippen_log10ws

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=C4461410&Units=SI>

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/ci9903071>

Legend

cpg:	Ideal gas heat capacity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hvap:	Enthalpy of vaporization at standard conditions
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mccvol:	McGowan's characteristic volume
pc:	Critical Pressure
pvap:	Vapor pressure
tb:	Normal Boiling Point Temperature

tc: Critical Temperature
tf: Normal melting (fusion) point
vc: Critical Volume

Latest version available from:

<https://www.chemeo.com/cid/40-368-9/2-Butene-2-chloro.pdf>

Generated by Cheméo on 2024-02-22 21:50:08.937238482 +0000 UTC m=+10927857.857815797.

Cheméo (<https://www.chemeo.com>) is the biggest free database of chemical and physical data for the process industry.