

2-Buten-1-ol, (Z)-

Other names:	(2Z)-2-Buten-1-ol (Z)-2-Buten-1-ol (Z)-CH ₃ CH=CHCH ₂ OH 2-Buten-1-ol, (2Z)- Z-Crotyl alcohol cis-2-Buten-1-ol cis-2-Butenol cis-2-Butenyl alcohol cis-Crotyl alcohol
Inchi:	InChI=1S/C4H8O/c1-2-3-4-5/h2-3,5H,4H2,1H3/b3-2-
InchiKey:	WCASXYBKJHWFMY-IHWYPQMZSA-N
Formula:	C ₄ H ₈ O
SMILES:	CC=CCO
Mol. weight [g/mol]:	72.11
CAS:	4088-60-2

Physical Properties

Property code	Value	Unit	Source
gf	-73.80	kJ/mol	Joback Method
hf	-160.90	kJ/mol	Joback Method
hfus	10.41	kJ/mol	Joback Method
hvap	41.14	kJ/mol	Joback Method
log10ws	-0.61		Crippen Method
logp	0.555		Crippen Method
mcvol	68.790	ml/mol	McGowan Method
pc	4704.19	kPa	Joback Method
tb	387.26	K	Joback Method
tc	557.54	K	Joback Method
tf	190.58	K	Joback Method
vc	0.259	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
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cpg	119.16	J/molxK	387.26	Joback Method
cpg	125.85	J/molxK	415.64	Joback Method
cpg	132.23	J/molxK	444.02	Joback Method
cpg	138.32	J/molxK	472.40	Joback Method
cpg	144.13	J/molxK	500.78	Joback Method
cpg	149.66	J/molxK	529.16	Joback Method
cpg	154.94	J/molxK	557.54	Joback Method
dvisc	0.1526839	Paxs	190.58	Joback Method
dvisc	0.0243706	Paxs	223.36	Joback Method
dvisc	0.0062218	Paxs	256.14	Joback Method
dvisc	0.0021653	Paxs	288.92	Joback Method
dvisc	0.0009344	Paxs	321.70	Joback Method
dvisc	0.0004710	Paxs	354.48	Joback Method
dvisc	0.0002666	Paxs	387.26	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	2.24174e+01
Coeff. B	-5.57834e+03
Coeff. C	-5.12800e+01
Temperature range (K), min.	303.35
Temperature range (K), max.	377.39

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C4088602&Units=SI
The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
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
hvap:	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
pvap:	Vapor pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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