2-Butanol

Other names:	sec-Butyl Alcohol
	sec-Butanol
	CCS 301
	Ethyl methyl carbinol
	Methyl ethyl carbinol
	1-Methyl-1-propanol
	1-Methylpropyl alcohol
	2-Hydroxybutane
	sec-C4H9OH
	Butane, 2-hydroxy-
	Butanol-2
	Butan-2-ol
	2-Butyl alcohol
	s-Butyl alcohol
	Butylene hydrate
	DL-sec-Butanol
	DL-2-Butanol
	Alcool butylique secondaire
	Butanol secondaire
	s-Butanol
	1-Methyl propanol
	n-Butan-2-ol
	NSC 25499
	2-Butanol, (.+/-.)-
Inchi:	InChI=1S/C4H10O/c1-3-4(2)5/h4-5H,3H2,1-2H3
InchiKey:	BTANRVKWQNVYAZ-UHFFFAOYSA-N
Formula:	C4H10O
SMILES:	CCC(C)O
Mol. weight [g/mol]:	74.12
CAS:	15892-23-6

Physical Properties

Property code	Value	Unit	Source
chl	-2660.59 ± 0.18	kJ/mol	NIST Webbook
gf	-156.46	kJ/mol	Joback Method
hf	-292.70 ± 0.30	kJ/mol	NIST Webbook

hfl	-342.60 ± 0.30	kJ/mol	NIST Webbook
hfus	6.68	kJ/mol	Joback Method
hvap	49.86 ± 0.03	kJ/mol	NIST Webbook
log10ws	-0.87		Crippen Method
logp	0.777		Crippen Method
mcvol	73.090	ml/mol	McGowan Method
pc	4432.62	kPa	Joback Method
tb	372.70	K	NIST Webbook
tb	371.20	K	NIST Webbook
tc	548.34	K	Joback Method
tf	180.66	K	Joback Method
vc	0.273	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	134.27	J/mol×K	382.66	Joback Method
cpg	141.59	J/mol×K	410.27	Joback Method
cpg	148.65	J/mol×K	437.89	Joback Method
cpg	155.45	J/mol×K	465.50	Joback Method
cpg	162.00	J/mol×K	493.11	Joback Method
cpg	168.31	J/mol×K	520.73	Joback Method
cpg	174.38	J/mol×K	548.34	Joback Method
dvisc	0.4179525	Pa×s	180.66	Joback Method
dvisc	0.0498950	Pa×s	214.33	Joback Method
dvisc	0.0106075	Pa×s	247.99	Joback Method
dvisc	0.0032653	Pa×s	281.66	Joback Method
dvisc	0.0012927	Pa×s	315.33	Joback Method
dvisc	0.0006119	Pa×s	348.99	Joback Method
dvisc	0.0003304	Pa×s	382.66	Joback Method

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=C15892236&Units=SI

Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

Legend

chl:	Standard liquid enthalpy of combustion
cpg:	Ideal gas heat capacity
dvisc:	Dynamic viscosity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfl:	Liquid phase 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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume