2-Butanol, (R)-

Other names:	(-)-2-Butanol
	(R)-(-)-2-Butanol
	(R)-2-Butanol
	(R)-butan-2-ol
	sec-Butyl Alcohol, (R)-(-)-
Inchi:	InChI=1S/C4H10O/c1-3-4(2)5/h4-5H,3H2,1-2H3/t4-/m0/s1
InchiKey:	BTANRVKWQNVYAZ-BYPYZUCNSA-N
Formula:	C4H10O
SMILES:	CCC(C)O
Mol. weight [g/mol]:	74.12
CAS:	14898-79-4

Physical Properties

Property code	Value	Unit	Source
gf	-156.46	kJ/mol	Joback Method
hf	-283.40	kJ/mol	Joback Method
hfus	6.68	kJ/mol	Joback Method
hvap	40.79	kJ/mol	Joback Method
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	372.45 ± 0.50	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

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.65045e+01
Coeff. B	-3.89812e+03
Coeff. C	-4.47470e+01
Temperature range (K), min.	285.12
Temperature range (K), max.	393.01

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C14898794&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/ci990307l

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

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