2-Butene, 1-bromo-

Other names:	1-Bromo-2-butene
	1-Crotyl bromide
	1-bromobut-2-ene
	2-Butenyl bromide
	Crotonyl bromide
	Crotyl bromide
Inchi:	InChI=1S/C4H7Br/c1-2-3-4-5/h2-3H,4H2,1H3/b3-2+
InchiKey:	AVMHMVJVHYGDOO-NSCUHMNNSA-N
Formula:	C4H7Br
SMILES:	CC=CCBr
Mol. weight [g/mol]:	135.00
CAS:	4784-77-4

Physical Properties

Property code	Value	Unit	Source
gf	77.34	kJ/mol	Joback Method
hf	17.66	kJ/mol	Joback Method
hfus	11.60	kJ/mol	Joback Method
hvap	30.89	kJ/mol	Joback Method
log10ws	-1.78		Crippen Method
logp	1.957		Crippen Method
mcvol	80.420	ml/mol	McGowan Method
pc	4559.21	kPa	Joback Method
tb	371.15 ± 2.00	K	NIST Webbook
tb	377.50 ± 1.50	K	NIST Webbook
tc	557.14	K	Joback Method
tf	189.56	K	Joback Method
vc	0.301	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	112.95	J/mol×K	361.24	Joback Method
cpg	120.43	J/mol×K	393.89	Joback Method

cpg	127.45	J/mol×K	426.54	Joback Method
cpg	134.06	J/mol×K	459.19	Joback Method
cpg	140.27	J/mol×K	491.84	Joback Method
cpg	146.10	J/mol×K	524.49	Joback Method
cpg	151.59	J/mol×K	557.14	Joback Method
dvisc	0.0032305	Pa×s	189.56	Joback Method
dvisc	0.0016765	Pa×s	218.17	Joback Method
dvisc	0.0010129	Pa×s	246.79	Joback Method
dvisc	0.0006796	Pa×s	275.40	Joback Method
dvisc	0.0004915	Pa×s	304.01	Joback Method
dvisc	0.0003758	Pa×s	332.63	Joback Method
dvisc	0.0002999	Pa×s	361.24	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	286.00	K	1.30	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.53332e+01
Coeff. B	-3.55050e+03
Coeff. C	-4.61370e+01
Temperature range (K), min.	282.12
Temperature range (K), max.	400.62

Sources

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=C4784774&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

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
tbrp:	Boiling point at reduced pressure
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume