trans-1-Butyl-2-methylcyclopropane

Other names: 1-Butyl-2-methylcyclopropane, (E)-
Inchi: InChI=1S/C8H16/c1-3-4-5-8-6-7(8)2/h7-8H,3-6H2,1-2H3/t7-,8-/m0/s1
InchiKey: IWTBNPKBPXCCIV-YUMQZZPRSA-N
Formula: C8H16
SMILES: CCCCC1CC1C
Mol. weight [g/mol]: 112.21
CAS: 38851-70-6

Physical Properties

Property code	Value	Unit	Source
gf	69.52	kJ/mol	Joback Method
hf	-155.99	kJ/mol	Joback Method
hfus	15.68	kJ/mol	Joback Method
hvap	33.01	kJ/mol	Joback Method
log10ws	-2.58		Crippen Method
logp	2.833		Crippen Method
mcvol	112.720	ml/mol	McGowan Method
pc	2802.44	kPa	Joback Method
rinpol	790.00		NIST Webbook
tb	384.51	K	Joback Method
tc	561.42	K	Joback Method
tf	193.62	K	Joback Method
vc	0.440	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	216.48	J/mol×K	384.51	Joback Method
cpg	284.10	J/mol×K	531.93	Joback Method
cpg	271.82	J/mol×K	502.45	Joback Method
cpg	258.93	J/mol×K	472.96	Joback Method
cpg	245.43	J/mol×K	443.48	Joback Method
cpg	231.29	J/mol×K	413.99	Joback Method
cpg	295.82	J/mol×K	561.42	Joback Method

dvisc	0.0003249	Pa×s	384.51	Joback Method
dvisc	0.0003486	Pa×s	352.69	Joback Method
dvisc	0.0003793	Pa×s	320.88	Joback Method
dvisc	0.0004205	Pa×s	289.06	Joback Method
dvisc	0.0004781	Pa×s	257.25	Joback Method
dvisc	0.0005637	Pa×s	225.44	Joback Method
dvisc	0.0007016	Pa×s	193.62	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=C38851706&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

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
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume