2-methoxybut-2-ene

Other names: 2-Butene, 2-methoxy-
Inchi: InChI=1S/C5H10O/c1-4-5(2)6-3/h4H,1-3H3
InchiKey: JWBPCSXRWORRAI-UHFFFAOYSA-N
Formula: C5H10O
SMILES: CC=C(C)OC
Mol. weight [g/mol]: 86.13
CAS: 6380-95-6

Physical Properties

Property code	Value	Unit	Source
gf	-42.11	kJ/mol	Joback Method
hf	-171.32	kJ/mol	Joback Method
hfus	8.79	kJ/mol	Joback Method
hvap	29.17	kJ/mol	Joback Method
log10ws	-1.35		Crippen Method
logp	1.556		Crippen Method
mcvol	82.880	ml/mol	McGowan Method
pc	3637.73	kPa	Joback Method
tb	340.26	K	Joback Method
tc	517.30	K	Joback Method
tf	155.35 ± 0.40	K	NIST Webbook
vc	0.315	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	134.00	J/mol×K	340.26	Joback Method
cpg	142.65	J/mol×K	369.77	Joback Method
cpg	151.00	J/mol×K	399.27	Joback Method
cpg	159.04	J/mol×K	428.78	Joback Method
cpg	166.79	J/mol×K	458.28	Joback Method
cpg	174.26	J/mol×K	487.79	Joback Method
cpg	181.44	J/mol×K	517.30	Joback Method

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=C6380956&Units=SI
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
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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume