(Z)-CH3CH2CH=CH(OCH3)

Other names: cis-1-Methoxy-1-butene
Inchi: InChI=1S/C5H10O/c1-3-4-5-6-2/h4-5H,3H2,1-2H3/b5-4-
InchiKey: KMQWOHBEYVPGQJ-PLNGDYQASA-N
Formula: C5H10O
SMILES: CCC=COC
Mol. weight [g/mol]: 86.13
CAS: 10034-12-5

Physical Properties

Property code	Value	Unit	Source
gf	-33.56	kJ/mol	Joback Method
hf	-161.53	kJ/mol	Joback Method
hfus	10.10	kJ/mol	Joback Method
hvap	29.09	kJ/mol	Joback Method
log10ws	-1.35		Crippen Method
logp	1.556		Crippen Method
mcvol	82.880	ml/mol	McGowan Method
pc	3615.89	kPa	Joback Method
tb	340.38	K	Joback Method
tc	513.77	K	Joback Method
tf	163.26	K	Joback Method
vc	0.314	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	133.95	J/mol×K	340.38	Joback Method
cpg	142.46	J/mol×K	369.28	Joback Method
cpg	150.67	J/mol×K	398.18	Joback Method
cpg	158.59	J/mol×K	427.07	Joback Method
cpg	166.23	J/mol×K	455.97	Joback Method
cpg	173.60	J/mol×K	484.87	Joback Method
cpg	180.69	J/mol×K	513.77	Joback Method
dvisc	0.0028355	Pa×s	163.26	Joback Method

dvisc	0.0012426	Pa×s	192.78	Joback Method
dvisc	0.0006780	Pa×s	222.30	Joback Method
dvisc	0.0004264	Pa×s	251.82	Joback Method
dvisc	0.0002955	Pa×s	281.34	Joback Method
dvisc	0.0002196	Pa×s	310.86	Joback Method
dvisc	0.0001718	Pa×s	340.38	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=C10034125&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
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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

Latest version available from:
https://www.chemeo.com/cid/61-777-2/Z-CH3CH2CH-CH-OCH3.pdf
Generated by Cheméo on 2024-10-12 03:16:30.19600743 +0000 UTC m=+3283852.832976679.
Cheméo (https://www.chemeo.com) is the biggest free database of chemical and physical data for the process industry.