

1-Propene, 1-(1,1-dimethoxyethoxy)-, (Z)-

Inchi:	InChI=1S/C7H14O3/c1-5-6-10-7(2,8-3)9-4/h5-6H,1-4H3/b6-5-
InchiKey:	XJZFAGYWNJDGRK-WAYWQWQTSА-N
Formula:	C7H14O3
SMILES:	CC=COC(C)(OC)OC
Mol. weight [g/mol]:	146.18
CAS:	66178-22-1

Physical Properties

Property code	Value	Unit	Source
gf	-223.88	kJ/mol	Joback Method
hf	-476.00	kJ/mol	Joback Method
hfus	10.24	kJ/mol	Joback Method
hvap	37.07	kJ/mol	Joback Method
log10ws	-1.47		Crippen Method
logp	1.503		Crippen Method
mcvol	122.800	ml/mol	McGowan Method
pc	2859.68	kPa	Joback Method
tb	427.75	K	Joback Method
tc	611.93	K	Joback Method
tf	232.68	K	Joback Method
vc	0.451	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	252.70	J/molxK	427.75	Joback Method
cpg	264.77	J/molxK	458.45	Joback Method
cpg	276.39	J/molxK	489.14	Joback Method
cpg	287.55	J/molxK	519.84	Joback Method
cpg	298.26	J/molxK	550.54	Joback Method
cpg	308.53	J/molxK	581.23	Joback Method
cpg	318.36	J/molxK	611.93	Joback Method
dvisc	0.0031657	Paxs	232.68	Joback Method
dvisc	0.0013970	Paxs	265.19	Joback Method

dvisc	0.0007371	Paxs	297.70	Joback Method
dvisc	0.0004411	Paxs	330.22	Joback Method
dvisc	0.0002894	Paxs	362.73	Joback Method
dvisc	0.0002035	Paxs	395.24	Joback Method
dvisc	0.0001510	Paxs	427.75	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C66178221&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
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
mccvol:	McGowan's characteristic volume
pc:	Critical Pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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