trans-CH3CH=CH-OC2H5

Inchi: InChI=1S/C5H10O/c1-3-5-6-4-2/h3,5H,4H2,1-2H3/b5-3+
InchiKey: XDHOEHJVXXTEDV-HWKANZROSA-N
Formula: C5H10O
SMILES: CC=COCC
Mol. weight [g/mol]: 86.13
CAS: 4696-26-8

Physical Properties

Property code	Value	Unit	Source
affp	876.90	kJ/mol	NIST Webbook
basg	848.00	kJ/mol	NIST Webbook
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

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=C4696268&Units=SI
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

Legend

affp: Proton affinity
basg: Gas basicity
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

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