2-Ethoxypentane

Other names:	sec-Amyl ethyl ether
	Pentane, 2-ethoxy-
	Ethyl 1-methylbutyl ether
	Ethyl 2-pentyl ether
Inchi:	InChI=1S/C7H16O/c1-4-6-7(3)8-5-2/h7H,4-6H2,1-3H3
InchiKey:	XFKPOLRDQWCGPV-UHFFFAOYSA-N
Formula:	C7H16O
SMILES:	CCCC(C)OCC
Mol. weight [g/mol]:	116.20
CAS:	1817-89-6

Physical Properties

Property code	Value	Unit	Source
gf	-99.38	kJ/mol	Joback Method
hf	-325.31	kJ/mol	Joback Method
hfus	11.55	kJ/mol	Joback Method
hvap	33.20	kJ/mol	Joback Method
log10ws	-1.95		Crippen Method
logp	2.212		Crippen Method
mcvol	115.360	ml/mol	McGowan Method
pc	2773.00	kPa	Joback Method
rinpol	772.00		NIST Webbook
rinpol	721.00		NIST Webbook
rinpol	721.00		NIST Webbook
tb	377.50 ± 0.50	K	NIST Webbook
tc	549.69	K	Joback Method
tf	175.88	K	Joback Method
vc	0.440	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	218.33	J/mol×K	381.54	Joback Method
cpg	273.94	J/mol×K	521.67	Joback Method

cpg	263.53	J/mol×K	493.64	Joback Method
cpg	252.77	J/mol×K	465.62	Joback Method
cpg	241.65	J/mol×K	437.59	Joback Method
cpg	230.17	J/mol×K	409.57	Joback Method
cpg	284.00	J/mol×K	549.69	Joback Method
dvisc	0.0002162	Pa×s	381.54	Joback Method
dvisc	0.0002896	Pa×s	347.26	Joback Method
dvisc	0.0004135	Pa×s	312.99	Joback Method
dvisc	0.0006444	Pa×s	278.71	Joback Method
dvisc	0.0011375	Pa×s	244.43	Joback Method
dvisc	0.0024170	Pa×s	210.16	Joback Method
dvisc	0.0068890	Pa×s	175.88	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=C1817896&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