Benzene, (2-ethoxyethyl)-

Other names: Ethyl phenethyl ether
(2-ethoxyethyl)benzene
Inchi: InChI=1S/C10H14O/c1-2-11-9-8-10-6-4-3-5-7-10/h3-7H,2,8-9H2,1H3
InchiKey: YLQUZJVSFHZOBQ-UHFFFAOYSA-N
Formula: C10H14O
SMILES: CCOCCc1ccccc1
Mol. weight [g/mol]: 150.22
CAS: 1817-90-9

Physical Properties

Property code	Value	Unit	Source
gf	40.73	kJ/mol	Joback Method
hf	-145.42	kJ/mol	Joback Method
hfus	16.89	kJ/mol	Joback Method
hvap	42.54	kJ/mol	Joback Method
log10ws	-2.20		Crippen Method
logp	2.266		Crippen Method
mcvol	133.870	ml/mol	McGowan Method
pc	2878.12	kPa	Joback Method
rinpol	1124.00		NIST Webbook
rinpol	1124.00		NIST Webbook
rinpol	1124.00		NIST Webbook
tb	477.30	K	Joback Method
tc	680.42	K	Joback Method
tf	251.11	K	Joback Method
vc	0.505	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	281.03	J/mol×K	477.30	Joback Method
cpg	295.72	J/mol×K	511.15	Joback Method
cpg	309.68	J/mol×K	545.01	Joback Method
cpg	322.92	J/mol×K	578.86	Joback Method

cpg	335.47	J/mol×K	612.71	Joback Method
cpg	347.33	J/mol×K	646.57	Joback Method
cpg	358.54	J/mol×K	680.42	Joback Method
dvisc	0.0027820	Pa×s	251.11	Joback Method
dvisc	0.0013384	Pa×s	288.81	Joback Method
dvisc	0.0007625	Pa×s	326.51	Joback Method
dvisc	0.0004880	Pa×s	364.21	Joback Method
dvisc	0.0003396	Pa×s	401.90	Joback Method
dvisc	0.0002515	Pa×s	439.60	Joback Method
dvisc	0.0001953	Pa×s	477.30	Joback Method

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C1817909&Units=SI
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l
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
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

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