Benzene, (1-ethoxyethyl)-

Other names:	Ether, ethyl «alpha»-methylbenzyl «alpha»-Methylbenzyl ethyl ether «alpha»-Phenyldiethyl ether (1-ethoxyethyl)benzene
Inchi:	InChI=1S/C10H14O/c1-3-11-9(2)10-7-5-4-6-8-10/h4-9H,3H2,1-2H3
InchiKey:	MVTKJCAAJPVUHJ-UHFFFAOYSA-N
Formula:	C10H14O
SMILES:	CCOC(C)c1ccccc1
Mol. weight [g/mol]:	150.22
CAS:	3299-05-6

Physical Properties

Property code	Value	Unit	Source
gf	38.29	kJ/mol	Joback Method
hf	-150.70	kJ/mol	Joback Method
hfus	13.36	kJ/mol	Joback Method
hvap	52.60 ± 0.20	kJ/mol	NIST Webbook
log10ws	-2.66		Crippen Method
logp	2.784		Crippen Method
mcvol	133.870	ml/mol	McGowan Method
pc	2902.98	kPa	Joback Method
tb	476.86	K	Joback Method
tc	684.68	K	Joback Method
tf	236.11	K	Joback Method
vc	0.499	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	360.62	J/mol×K	684.68	Joback Method
cpg	281.20	J/mol×K	476.86	Joback Method
cpg	296.31	J/mol×K	511.50	Joback Method
cpg	310.65	J/mol×K	546.13	Joback Method
cpg	324.23	J/mol×K	580.77	Joback Method

cpg	337.07	J/mol×K	615.41	Joback Method
cpg	349.19	J/mol×K	650.05	Joback Method
dvisc	0.0001854	Pa×s	476.86	Joback Method
dvisc	0.0040774	Pa×s	236.11	Joback Method
dvisc	0.0016757	Pa×s	276.24	Joback Method
dvisc	0.0008630	Pa×s	316.36	Joback Method
dvisc	0.0005160	Pa×s	356.49	Joback Method
dvisc	0.0003424	Pa×s	396.61	Joback Method
dvisc	0.0002450	Pa×s	436.74	Joback Method
hvapt	52.40 ± 0.20	kJ/mol	302.00	NIST Webbook

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C3299056&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
hvapt: Enthalpy of vaporization at a given temperature
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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