Benzene, butoxy-

Other names:	Butoxybenzene
	Butyl phenyl ether
	Ether, butyl phenyl
	Phenyl butyl ether
	n-Butoxybenzene
	n-Butyl phenyl ether
Inchi:	InChI=1S/C10H14O/c1-2-3-9-11-10-7-5-4-6-8-10/h4-8H,2-3,9H2,1H3
InchiKey:	YFNONBGXNFCTMM-UHFFFAOYSA-N
Formula:	C10H14O
SMILES:	CCCCOc1ccccc1
Mol. weight [g/mol]:	150.22
CAS:	1126-79-0

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	-2.85		Crippen Method
logp	2.865		Crippen Method
mcvol	133.870	ml/mol	McGowan Method
pc	2878.12	kPa	Joback Method
rinpol	1170.00		NIST Webbook
rinpol	1164.00		NIST Webbook
rinpol	1167.50		NIST Webbook
rinpol	1167.50		NIST Webbook
rinpol	1164.00		NIST Webbook
tb	479.15 ± 3.00	K	NIST Webbook
tb	483.20	K	NIST Webbook
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	358.54	J/mol×K	680.42	Joback Method
cpg	347.33	J/mol×K	646.57	Joback Method
cpg	335.47	J/mol×K	612.71	Joback Method
cpg	322.92	J/mol×K	578.86	Joback Method
cpg	309.68	J/mol×K	545.01	Joback Method
cpg	295.72	J/mol×K	511.15	Joback Method
cpg	281.03	J/mol×K	477.30	Joback Method
dvisc	0.0027820	Pa×s	251.11	Joback Method
dvisc	0.0001953	Pa×s	477.30	Joback Method
dvisc	0.0002515	Pa×s	439.60	Joback Method
dvisc	0.0003396	Pa×s	401.90	Joback Method
dvisc	0.0004880	Pa×s	364.21	Joback Method
dvisc	0.0007625	Pa×s	326.51	Joback Method
dvisc	0.0013384	Pa×s	288.81	Joback Method
hvapt	48.90	kJ/mol	437.00	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.47378e+01
Coeff. B	-4.29489e+03
Coeff. C	-5.87320e+01
Temperature range (K), min.	355.95
Temperature range (K), max.	514.36

Sources

The Yaws Handbook of Vapor Pressure: https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure

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

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C1126790&Units=SI

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
pvap:	Vapor pressure
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume