Benzene, 1,1'-(oxydiethylidene)bis-

Other names:	Ether, bis(«alpha»-methylbenzyl)
	«alpha»-Methyl benzyl ether
	Bis(«alpha»-methylbenzyl) ether
	Bis(«alpha»-phenylethyl) ether
	1,1'-Diphenyldiethyl ether
	Alpha,alpha'-diphenyl diethyl ether
	[1-(1-Phenylethoxy)ethyl]benzene
	1,1'-(oxydiethylidene)bisbenzene
Inchi:	InChI=1S/C16H18O/c1-13(15-9-5-3-6-10-15)17-14(2)16-11-7-4-8-12-16/h3-14H,1-2H3
InchiKey:	WXAVSTZWKNIWCN-UHFFFAOYSA-N
Formula:	C16H18O
SMILES:	CC(OC(C)c1ccccc1)c1ccccc1
Mol. weight [g/mol]:	226.31
CAS:	93-96-9

Physical Properties

Property code	Value	Unit	Source
gf	198.78	kJ/mol	Joback Method
hf	-43.29	kJ/mol	Joback Method
hfus	19.42	kJ/mol	Joback Method
hvap	57.40	kJ/mol	Joback Method
log10ws	-4.73		Crippen Method
logp	4.525		Crippen Method
mcvol	194.650	ml/mol	McGowan Method
pc	2282.77	kPa	Joback Method
tb	450.15 ± 3.00	K	NIST Webbook
tc	876.86	K	Joback Method
tf	315.15	K	Joback Method
vc	0.722	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	594.52	J/mol×K	876.86	Joback Method

cpg	500.46	J/mol×K	640.38	Joback Method
cpg	519.41	J/mol×K	679.79	Joback Method
cpg	536.96	J/mol×K	719.21	Joback Method
cpg	553.19	J/mol×K	758.62	Joback Method
cpg	568.14	J/mol×K	798.03	Joback Method
cpg	581.90	J/mol×K	837.45	Joback Method
dvisc	0.0001035	Pa×s	640.38	Joback Method
dvisc	0.0029645	Pa×s	315.15	Joback Method
dvisc	0.0011246	Pa×s	369.36	Joback Method
dvisc	0.0005467	Pa×s	423.56	Joback Method
dvisc	0.0003130	Pa×s	477.76	Joback Method
dvisc	0.0002008	Pa×s	531.97	Joback Method
dvisc	0.0001398	Pa×s	586.17	Joback Method
hvapt	62.10	kJ/mol	461.50	NIST Webbook

Sources

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=C93969&Units=SI
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method: https://www.chemeo.com/doc/models/crippen_log10ws

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