Methyl trityl ether

Other names:	Benzene, 1,1',1''-(methoxymethylidyne)tris-
	Ether, methyl trityl
	Triphenylmethyl methyl ether
	Trityl methyl ether
	Methyl triphenylmethyl ether
	Triphenylmethanol, methyl ether
	[Methoxy(diphenyl)methyl]benzene
Inchi:	InChI=1S/C20H18O/c1-21-20(17-11-5-2-6-12-17,18-13-7-3-8-14-18)19-15-9-4-10-16-19/
InchiKey:	IRMNIXXVOOMKKP-UHFFFAOYSA-N
Formula:	C20H18O
SMILES:	COC(c1ccccc1)(c1ccccc1)c1ccccc1
Mol. weight [g/mol]:	274.36
CAS:	596-31-6

Physical Properties

Property code	Value	Unit	Source
gf	352.59	kJ/mol	Joback Method
hf	112.49	kJ/mol	Joback Method
hfus	23.45	kJ/mol	Joback Method
hvap	68.06	kJ/mol	Joback Method
log10ws	-4.96		Crippen Method
logp	4.625		Crippen Method
mcvol	227.250	ml/mol	McGowan Method
pc	2177.49	kPa	Joback Method
tb	756.23	K	Joback Method
tc	1023.36	K	Joback Method
tf	419.07	K	Joback Method
vc	0.839	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	633.75	J/mol×K	756.23	Joback Method
cpg	652.23	J/mol×K	800.75	Joback Method

cpg	668.93	J/mol×K	845.27	Joback Method
cpg	684.02	J/mol×K	889.80	Joback Method
cpg	697.67	J/mol×K	934.32	Joback Method
cpg	710.05	J/mol×K	978.84	Joback Method
cpg	721.33	J/mol×K	1023.36	Joback Method
dvisc	0.0010696	Pa×s	419.07	Joback Method
dvisc	0.0005055	Pa×s	475.26	Joback Method
dvisc	0.0002799	Pa×s	531.46	Joback Method
dvisc	0.0001736	Pa×s	587.65	Joback Method
dvisc	0.0001170	Pa×s	643.84	Joback Method
dvisc	0.0000840	Pa×s	700.04	Joback Method
dvisc	0.0000634	Pa×s	756.23	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=C596316&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
tb: Normal Boiling Point Temperature
tc: Critical Temperature
tf: Normal melting (fusion) point
vc: Critical Volume