Benzophenone dimethyl ketal

Other names:	Benzene, 1,1'-(dimethoxymethylene)bis- 1,1'-(dimethoxymethylene)bisbenzene benzophenone dimethyl acetal Dimethoxydiphenylmethane
Inchi:	InChI=1S/C15H16O2/c1-16-15(17-2,13-9-5-3-6-10-13)14-11-7-4-8-12-14/h3-12H,1-2H3
InchiKey:	NYRVXYOKUZSUDA-UHFFFAOYSA-N
Formula:	C15H16O2
SMILES:	COC(OC)(c1ccccc1)c1ccccc1
Mol. weight [g/mol]:	228.29
CAS:	2235-01-0

Physical Properties

Property code	Value	Unit	Source
gf	93.08	kJ/mol	Joback Method
hf	-153.06	kJ/mol	Joback Method
hfus	17.65	kJ/mol	Joback Method
hsub	103.90 ± 1.70	kJ/mol	NIST Webbook
hvap	57.06	kJ/mol	Joback Method
log10ws	-3.25		Crippen Method
logp	3.180		Crippen Method
mcvol	186.430	ml/mol	McGowan Method
pc	2472.73	kPa	Joback Method
tb	637.57	K	Joback Method
tc	879.70	K	Joback Method
tf	358.53	K	Joback Method
vc	0.684	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	566.02	J/mol×K	879.70	Joback Method
cpg	554.40	J/mol×K	839.35	Joback Method
cpg	541.64	J/mol×K	798.99	Joback Method
cpg	527.67	J/mol×K	758.64	Joback Method

cpg	512.42	J/mol×K	718.28	Joback Method
cpg	495.81	J/mol×K	677.93	Joback Method
cpg	477.79	J/mol×K	637.57	Joback Method
dvisc	0.0014638	Pa×s	358.53	Joback Method
dvisc	0.0000911	Pa×s	637.57	Joback Method
dvisc	0.0001207	Pa×s	591.06	Joback Method
dvisc	0.0001676	Pa×s	544.56	Joback Method
dvisc	0.0002476	Pa×s	498.05	Joback Method
dvisc	0.0003963	Pa×s	451.54	Joback Method
dvisc	0.0007066	Pa×s	405.04	Joback Method
hfust	27.80	kJ/mol	380.00	NIST Webbook

Sources

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=C2235010&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
hfust: Enthalpy of fusion at a given temperature
hsub: Enthalpy of sublimation 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