Benzenemethanol, «alpha»-methyl-«alpha»-phenyl-

Other names: Benzhydrol, «alpha»-methyl-
«alpha»-Methylbenzhydrol
Diphenylmethylcarbinol
Methyldiphenylcarbinol
1,1-Diphenyl-1-ethanol
1,1-Diphenylethanol
«alpha»-methylbenzhydryl alcohol

Inchi: InChI=1S/C14H14O/c1-14(15,12-8-4-2-5-9-12)13-10-6-3-7-11-13/h2-11,15H,1H3

InchiKey: GIMDPFBLSKQRNP-UHFFFAOYSA-N

Formula: C14H14O

SMILES: CC(O)(c1ccccc1)c1ccccc1

Mol. weight [g/mol]: 198.26

CAS: 599-67-7

Physical Properties

Property code	Value	Unit	Source
gf	157.84	kJ/mol	Joback Method
hf	-20.21	kJ/mol	Joback Method
hfus	16.77	kJ/mol	Joback Method
hsub	105.00 ± 0.80	kJ/mol	NIST Webbook
hvap	66.69	kJ/mol	Joback Method
log10ws	-3.42		Crippen Method
logp	2.942		Crippen Method
mcvol	166.470	ml/mol	McGowan Method
pc	3124.49	kPa	Joback Method
tb	662.03	K	Joback Method
tc	894.54	K	Joback Method
tf	353.65 ± 1.50	K	NIST Webbook
vc	0.612	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	502.22	J/mol×K	894.54	Joback Method

cpg	492.79	J/mol×K	855.79	Joback Method
cpg	482.57	J/mol×K	817.04	Joback Method
cpg	471.46	J/mol×K	778.29	Joback Method
cpg	459.36	J/mol×K	739.53	Joback Method
cpg	446.16	J/mol×K	700.78	Joback Method
cpg	431.78	J/mol×K	662.03	Joback Method
dvisc	0.0039902	Pa×s	363.62	Joback Method
dvisc	0.0000429	Pa×s	662.03	Joback Method
dvisc	0.0000673	Pa×s	612.29	Joback Method
dvisc	0.0001140	Pa×s	562.56	Joback Method
dvisc	0.0002141	Pa×s	512.83	Joback Method
dvisc	0.0004604	Pa×s	463.09	Joback Method
dvisc	0.0011903	Pa×s	413.36	Joback Method
hfust	26.49	kJ/mol	357.90	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=C599677&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
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