Benzene, 1,1'-(1-methyl-1,2-ethanediyl)bis-

Other names:	1,2-Diphenylpropane
	2-Phenylpropylbenzene
	Bibenzyl, «alpha»-methyl-
	Bibenzyl, Â«alphaÂ»-methyl-
	Propane, 1,2-diphenyl-
	«alpha»,«beta»-Diphenylpropane
	«alpha»-Methylbibenzyl
	Â«alphaÂ»,Â«betaÂ»-Diphenylpropane
	Â«alphaÂ»-Methylbibenzyl
Inchi:	InChI=1S/C15H16/c1-13(15-10-6-3-7-11-15)12-14-8-4-2-5-9-14/h2-11,13H,12H2,1H3
InchiKey:	XLWCIHPMASUXPI-UHFFFAOYSA-N
Formula:	C15H16
SMILES:	CC(Cc1ccccc1)c1ccccc1
Mol. weight [g/mol]:	196.29
CAS:	5814-85-7

Physical Properties

Property code	Value	Unit	Source
chl	-7866.00	kJ/mol	NIST Webbook
gf	297.80	kJ/mol	Joback Method
hf	114.85	kJ/mol	Joback Method
hfus	19.17	kJ/mol	Joback Method
hvap	53.15	kJ/mol	Joback Method
log10ws	-4.27		Crippen Method
logp	4.033		Crippen Method
mcvol	174.690	ml/mol	McGowan Method
pc	2530.27	kPa	Joback Method
tb	556.81 ± 0.20	K	NIST Webbook
tb	554.00 ± 4.00	K	NIST Webbook
tb	552.00 ± 5.00	K	NIST Webbook
tb	552.00 ± 5.00	K	NIST Webbook
tb	554.00 ± 3.00	K	NIST Webbook
tb	554.00 ± 4.00	K	NIST Webbook
tc	835.47	K	Joback Method
tf	273.29 ± 0.20	K	NIST Webbook
tf	273.30 ± 2.00	K	NIST Webbook
tf	325.00 ± 5.00	K	NIST Webbook

tf	325.00 ± 4.00	K	NIST Webbook
vc	0.653	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	421.98	J/mol×K	595.52	Joback Method
cpg	440.72	J/mol×K	635.51	Joback Method
cpg	458.04	J/mol×K	675.50	Joback Method
cpg	474.03	J/mol×K	715.49	Joback Method
cpg	488.77	J/mol×K	755.48	Joback Method
cpg	502.35	J/mol×K	795.47	Joback Method
cpg	514.85	J/mol×K	835.47	Joback Method
dvisc	0.0033832	Pa×s	296.65	Joback Method
dvisc	0.0013953	Pa×s	346.46	Joback Method
dvisc	0.0007190	Pa×s	396.27	Joback Method
dvisc	0.0004296	Pa×s	446.09	Joback Method
dvisc	0.0002847	Pa×s	495.90	Joback Method
dvisc	0.0002034	Pa×s	545.71	Joback Method
dvisc	0.0001537	Pa×s	595.52	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.47597e+01
Coeff. B	-4.72544e+03
Coeff. C	-8.80450e+01
Temperature range (K), min.	414.56
Temperature range (K), max.	588.18

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=C5814857&Units=SI

Legend

chl:	Standard liquid enthalpy of combustion
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
pvap:	Vapor pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume