Benzene, 1,1'-(1-methyl-1,3-propanediyl)bis-

Other names:	1,3-Diphenylbutane
	(1-methylpropane-1,3-diyl)dibenzene
Inchi:	InChI=1S/C16H18/c1-14(16-10-6-3-7-11-16)12-13-15-8-4-2-5-9-15/h2-11,14H,12-13H2,1
InchiKey:	PDINXYLAVFUHSA-UHFFFAOYSA-N
Formula:	C16H18
SMILES:	CC(CCc1ccccc1)c1ccccc1
Mol. weight [g/mol]:	210.31
CAS:	1520-44-1

Physical Properties

Property code	Value	Unit	Source
chl	-8912.00	kJ/mol	NIST Webbook
gf	306.22	kJ/mol	Joback Method
hf	94.21	kJ/mol	Joback Method
hfus	21.76	kJ/mol	Joback Method
hvap	55.37	kJ/mol	Joback Method
log10ws	-4.69		Crippen Method
logp	4.423		Crippen Method
mcvol	188.780	ml/mol	McGowan Method
pc	2302.53	kPa	Joback Method
rinpol	1663.50		NIST Webbook
tb	564.00 ± 3.00	K	NIST Webbook
tb	575.70 ± 0.70	K	NIST Webbook
tc	853.40	K	Joback Method
tf	307.92	K	Joback Method
vc	0.710	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	472.73	J/mol×K	618.40	Joback Method
cpg	491.86	J/mol×K	657.57	Joback Method
cpg	509.59	J/mol×K	696.73	Joback Method
cpg	525.99	J/mol×K	735.90	Joback Method

cpg	541.15	J/mol×K	775.06	Joback Method
cpg	555.14	J/mol×K	814.23	Joback Method
cpg	568.06	J/mol×K	853.40	Joback Method
dvisc	0.0032193	Pa×s	307.92	Joback Method
dvisc	0.0013116	Pa×s	359.67	Joback Method
dvisc	0.0006698	Pa×s	411.41	Joback Method
dvisc	0.0003975	Pa×s	463.16	Joback Method
dvisc	0.0002620	Pa×s	514.91	Joback Method
dvisc	0.0001863	Pa×s	566.65	Joback Method
dvisc	0.0001403	Pa×s	618.40	Joback Method
hsubt	73.60	kJ/mol	295.50	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=C1520441&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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
hsubt:	Enthalpy of sublimation at a given temperature
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
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point

vc: Critical Volume

Latest version available from:

https://www.chemeo.com/cid/30-669-6/Benzene-1-1-1-methyl-1-3-propanediyl-bis.pdf

Generated by Cheméo on 2024-10-12 08:16:48.997297563 +0000 UTC m=+3301871.634266811.

Cheméo (https://www.chemeo.com) is the biggest free database of chemical and physical data for the process industry.