Benzene, 1,1'-(3-methyl-1-propene-1,3-diyl)bis-

Other names: 1,3-Diphenyl-1-butene
1,3-Diphenylbutene-1
1-Butene, 1,3-diphenyl-
Inchi: InChI=1S/C16H16/c1-14(16-10-6-3-7-11-16)12-13-15-8-4-2-5-9-15/h2-14H,1H3/b13-12+
InchiKey: GNQWHYWLSGTMSL-OUKQBFOZSA-N
Formula: C16H16
SMILES: CC(C=Cc1ccccc1)c1ccccc1
Mol. weight [g/mol]: 208.30
CAS: 7614-93-9

Physical Properties

Property code	Value	Unit	Source
gf	386.44	kJ/mol	Joback Method
hf	211.43	kJ/mol	Joback Method
hfus	21.96	kJ/mol	Joback Method
hvap	55.33	kJ/mol	Joback Method
log10ws	-4.71		Crippen Method
logp	4.503		Crippen Method
mcvol	184.480	ml/mol	McGowan Method
pc	2421.88	kPa	Joback Method
rinpol	1740.00		NIST Webbook
tb	622.56	K	Joback Method
tc	868.04	K	Joback Method
tf	302.84	K	Joback Method
vc	0.690	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	452.06	J/mol×K	622.56	Joback Method
cpg	531.36	J/mol×K	827.13	Joback Method
cpg	518.02	J/mol×K	786.21	Joback Method
cpg	503.54	J/mol×K	745.30	Joback Method
cpg	487.79	J/mol×K	704.39	Joback Method

cpg	470.67	J/mol×K	663.47	Joback Method
cpg	543.67	J/mol×K	868.04	Joback Method
dvisc	0.0001202	Pa×s	622.56	Joback Method
dvisc	0.0001599	Pa×s	569.27	Joback Method
dvisc	0.0002256	Pa×s	515.99	Joback Method
dvisc	0.0003446	Pa×s	462.70	Joback Method
dvisc	0.0005877	Pa×s	409.41	Joback Method
dvisc	0.0011759	Pa×s	356.13	Joback Method
dvisc	0.0030034	Pa×s	302.84	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.45046e+01
Coeff. B	-4.71686e+03
Coeff. C	-1.03544e+02
Temperature range (K), min.	435.32
Temperature range (K), max.	616.63

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=C7614939&Units=SI

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

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
pvap:	Vapor pressure
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume