Benzene, 1,1'-[1-(2-propenyl)-1,2-ethanediyl]bis-

Other names: 4,5-diphenyl-1-pentene
Inchi: InChI=1S/C17H18/c1-2-9-17(16-12-7-4-8-13-16)14-15-10-5-3-6-11-15/h2-8,10-13,17H,1,
InchiKey: VLBDGUDFCZLMFW-UHFFFAOYSA-N
Formula: C17H18
SMILES: C=CCC(Cc1ccccc1)c1ccccc1
Mol. weight [g/mol]: 222.32
CAS: 5729-55-5

Physical Properties

Property code	Value	Unit	Source
gf	402.48	kJ/mol	Joback Method
hf	199.00	kJ/mol	Joback Method
hfus	23.07	kJ/mol	Joback Method
hvap	56.93	kJ/mol	Joback Method
log10ws	-4.96		Crippen Method
logp	4.589		Crippen Method
mcvol	198.570	ml/mol	McGowan Method
pc	2187.68	kPa	Joback Method
rinpol	1678.50		NIST Webbook
rinpol	1678.50		NIST Webbook
tb	637.96	K	Joback Method
tc	873.12	K	Joback Method
tf	317.43	K	Joback Method
vc	0.747	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	502.54	J/mol×K	637.96	Joback Method
cpg	583.63	J/mol×K	833.93	Joback Method
cpg	569.89	J/mol×K	794.74	Joback Method
cpg	555.00	J/mol×K	755.54	Joback Method
cpg	538.88	J/mol×K	716.35	Joback Method
cpg	521.42	J/mol×K	677.15	Joback Method

cpg	596.33	J/mol×K	873.12	Joback Method
dvisc	0.0001326	Pa×s	637.96	Joback Method
dvisc	0.0001753	Pa×s	584.54	Joback Method
dvisc	0.0002453	Pa×s	531.12	Joback Method
dvisc	0.0003699	Pa×s	477.70	Joback Method
dvisc	0.0006185	Pa×s	424.27	Joback Method
dvisc	0.0011995	Pa×s	370.85	Joback Method
dvisc	0.0029069	Pa×s	317.43	Joback Method

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=C5729555&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
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

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