

# Benzene, 1,1'-(1,2-dimethyl-1,2-ethenediyl)bis-, (E)-

Other names:	(E)-2,3-diphenyl-2-butene
Inchi:	InChI=1S/C16H16/c1-13(15-9-5-3-6-10-15)14(2)16-11-7-4-8-12-16/h3-12H,1-2H3/b14-13
InchiKey:	ATYQGOFMEQUNMJ-BUHFOSPRSA-N
Formula:	C16H16
SMILES:	CC(=C(C)c1ccccc1)c1ccccc1
Mol. weight [g/mol]:	208.30
CAS:	782-06-9

## Physical Properties

Property code	Value	Unit	Source
gf	371.78	kJ/mol	Joback Method
hf	197.13	kJ/mol	Joback Method
hfus	22.86	kJ/mol	Joback Method
hvap	55.88	kJ/mol	Joback Method
log10ws	-4.91		Crippen Method
logp	4.637		Crippen Method
mcvol	184.480	ml/mol	McGowan Method
pc	2426.65	kPa	Joback Method
tb	622.76	K	Joback Method
tc	871.95	K	Joback Method
tf	289.92	K	Joback Method
vc	0.698	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	451.11	J/molxK	622.76	Joback Method
cpg	469.87	J/molxK	664.29	Joback Method
cpg	487.12	J/molxK	705.82	Joback Method
cpg	502.98	J/molxK	747.36	Joback Method
cpg	517.57	J/molxK	788.89	Joback Method
cpg	531.03	J/molxK	830.42	Joback Method
cpg	543.45	J/molxK	871.95	Joback Method

# Sources

<b>McGowan Method:</b>	<a href="http://link.springer.com/article/10.1007/BF02311772">http://link.springer.com/article/10.1007/BF02311772</a>
<b>NIST Webbook:</b>	<a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=C782069&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C782069&amp;Units=SI</a>
<b>Crippen Method:</b>	<a href="http://pubs.acs.org/doi/abs/10.1021/ci990307l">http://pubs.acs.org/doi/abs/10.1021/ci990307l</a>
<b>Crippen Method:</b>	<a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.com/doc/models/crippen_log10ws</a>
<b>Joback Method:</b>	<a href="https://en.wikipedia.org/wiki/Joback_method">https://en.wikipedia.org/wiki/Joback_method</a>

# Legend

<b>cpg:</b>	Ideal gas heat capacity
<b>gf:</b>	Standard Gibbs free energy of formation
<b>hf:</b>	Enthalpy of formation at standard conditions
<b>hfus:</b>	Enthalpy of fusion at standard conditions
<b>hvap:</b>	Enthalpy of vaporization at standard conditions
<b>log10ws:</b>	Log10 of Water solubility in mol/l
<b>logp:</b>	Octanol/Water partition coefficient
<b>mcvol:</b>	McGowan's characteristic volume
<b>pc:</b>	Critical Pressure
<b>tb:</b>	Normal Boiling Point Temperature
<b>tc:</b>	Critical Temperature
<b>tf:</b>	Normal melting (fusion) point
<b>vc:</b>	Critical Volume

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