Stilbene, «alpha»-methyl-, (E)-

Other names:	Benzene, 1,1'-(1-methyl-1,2-ethenediyl)bis-, (E)-
	(E)-«alpha»-Methylstilbene
	trans-«alpha»-Methylstilbene
	trans-1,2-Diphenyl-1-propene
	trans-1,2-Diphenylpropene
	Benzene,trans-1,1'-(1-methyl- 1,2-ethenediyl)bis-
Inchi:	InChI=1S/C15H14/c1-13(15-10-6-3-7-11-15)12-14-8-4-2-5-9-14/h2-12H,1H3/b13-12+
InchiKey:	OVZXISBUYCEVEV-OUKQBFOZSA-N
Formula:	C15H14
SMILES:	CC(=Cc1ccccc1)c1ccccc1
Mol. weight [g/mol]:	194.27
CAS:	833-81-8

Physical Properties

Property code	Value	Unit	Source
chs	-8113.00	kJ/mol	NIST Webbook
gf	371.91	kJ/mol	Joback Method
hf	227.56	kJ/mol	Joback Method
hfus	21.58	kJ/mol	Joback Method
hvap	53.57	kJ/mol	Joback Method
ie	8.10 ± 0.05	eV	NIST Webbook
log10ws	-4.50		Crippen Method
logp	4.247		Crippen Method
mcvol	170.390	ml/mol	McGowan Method
pc	2659.77	kPa	Joback Method
tb	558.70	K	NIST Webbook
tc	850.12	K	Joback Method
tf	354.65 ± 2.00	K	NIST Webbook
vc	0.640	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	401.25	J/mol×K	600.00	Joback Method

cpg	419.27	J/mol×K	641.69	Joback Method
cpg	435.81	J/mol×K	683.37	Joback Method
cpg	450.99	J/mol×K	725.06	Joback Method
cpg	464.92	J/mol×K	766.75	Joback Method
cpg	477.72	J/mol×K	808.43	Joback Method
cpg	489.51	J/mol×K	850.12	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C833818&Units=SI
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

Legend

chs:	Standard solid enthalpy of combustion
cpg:	Ideal gas heat capacity
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
ie:	Ionization energy
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume