Benzene, 2-ethenyl-1,3,5-trimethyl-

Other names: Styrene, 2,4,6-trimethyl-
Mesitylethylene
Vinylmesitylene
2-Vinylmesitylene
2,4,6-Trimethylstyrene
1,3,5-Trimethyl-2-vinylbenzene
Inchi: InChI=1S/C11H14/c1-5-11-9(3)6-8(2)7-10(11)4/h5-7H,1H2,2-4H3
InchiKey: PDELBHCVXBSVPJ-UHFFFAOYSA-N
Formula: C11H14
SMILES: C=Cc1c(C)cc(C)cc1C
Mol. weight [g/mol]: 146.23
CAS: 769-25-5

Physical Properties

Property code	Value	Unit	Source
gf	213.10	kJ/mol	Joback Method
hf	57.18	kJ/mol	Joback Method
hfus	15.84	kJ/mol	Joback Method
hvap	43.67	kJ/mol	Joback Method
ie	8.33	eV	NIST Webbook
log10ws	-3.72		Crippen Method
logp	3.255		Crippen Method
mcvol	137.790	ml/mol	McGowan Method
pc	2640.67	kPa	Joback Method
tb	482.20	K	NIST Webbook
tb	477.00 ± 5.00	K	NIST Webbook
tc	699.55	K	Joback Method
tf	236.15 ± 0.50	K	NIST Webbook
vc	0.524	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	284.33	J/mol×K	489.38	Joback Method

cpg	298.54	J/mol×K	524.41	Joback Method
cpg	312.04	J/mol×K	559.44	Joback Method
cpg	324.86	J/mol×K	594.46	Joback Method
cpg	337.01	J/mol×K	629.49	Joback Method
cpg	348.52	J/mol×K	664.52	Joback Method
cpg	359.41	J/mol×K	699.55	Joback Method
dvisc	0.0012252	Pa×s	275.95	Joback Method
dvisc	0.0007579	Pa×s	311.52	Joback Method
dvisc	0.0005173	Pa×s	347.09	Joback Method
dvisc	0.0003791	Pa×s	382.67	Joback Method
dvisc	0.0002929	Pa×s	418.24	Joback Method
dvisc	0.0002357	Pa×s	453.81	Joback Method
dvisc	0.0001957	Pa×s	489.38	Joback Method
hvapt	50.90	kJ/mol	422.50	NIST Webbook

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C769255&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

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
hvapt: Enthalpy of vaporization at a given temperature
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