3H,3'H,3"H-Trisindeno[1,2-a:2',1'-c:1",2"-e]benzen

Other names: 9H-Tribenzo[a,f,l]trindene, 14,15-dihydro-
14,15-Dihydro-9H-diindeno[1,2-a:2,1-c]fluorene
10,15-Dihydro-5h-diindeno-[2,1-a;1',2'-c]fluorene
Inchi: InChI=1S/C27H18/c1-4-10-19-16(7-1)13-22-23-14-17-8-2-5-11-20(17)26(23)27-21-12-6-3
InchiKey: VGRJHHLDEYYRNF-UHFFFAOYSA-N
Formula: C27H18
SMILES: c1ccc2c(c1)Cc1c3c(c4c(c1-2)Cc1ccccc1-4)-c1ccccc1C3
Mol. weight [g/mol]: 342.43
CAS: 17509-71-6

Physical Properties

Property code	Value	Unit	Source
gf	827.04	kJ/mol	Joback Method
hf	570.13	kJ/mol	Joback Method
hfus	42.53	kJ/mol	Joback Method
hvap	89.73	kJ/mol	Joback Method
log10ws	-10.32		Crippen Method
logp	6.400		Crippen Method
mcvol	263.670	ml/mol	McGowan Method
pc	1945.79	kPa	Joback Method
tb	972.33	K	Joback Method
tc	1241.01	K	Joback Method
tf	687.55	K	Joback Method
vc	1.038	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	811.09	J/mol×K	972.33	Joback Method
cpg	916.67	J/mol×K	1196.23	Joback Method
cpg	892.08	J/mol×K	1151.45	Joback Method
cpg	869.64	J/mol×K	1106.67	Joback Method
cpg	848.94	J/mol×K	1061.89	Joback Method
cpg	829.56	J/mol×K	1017.11	Joback Method

cpg	943.84	J/mol×K	1241.01	Joback Method
dvisc	0.0087893	Pa×s	972.33	Joback Method
dvisc	0.0090204	Pa×s	924.87	Joback Method
dvisc	0.0092836	Pa×s	877.40	Joback Method
dvisc	0.0095859	Pa×s	829.94	Joback Method
dvisc	0.0099367	Pa×s	782.48	Joback Method
dvisc	0.0103482	Pa×s	735.01	Joback Method
dvisc	0.0108372	Pa×s	687.55	Joback Method

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C17509716&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
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