Benzene, 1,1',1'',1'''-(1,2-ethanediylidene)tetrakis-

Other names: Ethane, 1,1,2,2-tetraphenyl-
«alpha»,«alpha»,«beta»,«beta»-Tetraphenylethane
sym-Tetraphenylethane
Bibenzhydryl
1,1,2,2-Tetraphenylethane

Inchi: InChI=1S/C26H22/c1-5-13-21(14-6-1)25(22-15-7-2-8-16-22)26(23-17-9-3-10-18-23)24-19

InchiKey: RUGHUJBHQWALKM-UHFFFAOYSA-N

Formula: C26H22

SMILES: c1ccc(C(c2ccccc2)C(c2ccccc2)c2ccccc2)cc1

Mol. weight [g/mol]: 334.45

CAS: 632-50-8

Physical Properties

Property code	Value	Unit	Source
chs	-13596.00 ± 3.00	kJ/mol	NIST Webbook
chs	-13591.40 ± 1.30	kJ/mol	NIST Webbook
gf	612.80	kJ/mol	Joback Method
hf	357.00 ± 5.40	kJ/mol	NIST Webbook
hfs	220.00 ± 3.00	kJ/mol	NIST Webbook
hfus	32.21	kJ/mol	Joback Method
hsub	137.00	kJ/mol	NIST Webbook
hsub	136.80 ± 2.90	kJ/mol	NIST Webbook
hsub	137.00	kJ/mol	NIST Webbook
hvap	81.80	kJ/mol	Joback Method
log10ws	-7.25		Crippen Method
logp	6.651		Crippen Method
mcvol	282.160	ml/mol	McGowan Method
pc	1774.35	kPa	Joback Method
tb	900.12	K	Joback Method
tc	1177.25	K	Joback Method
tf	458.46	K	Joback Method
vc	1.048	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	925.46	J/mol×K	1131.06	Joback Method
cpg	851.68	J/mol×K	900.12	Joback Method
cpg	869.28	J/mol×K	946.31	Joback Method
cpg	885.22	J/mol×K	992.50	Joback Method
cpg	899.74	J/mol×K	1038.69	Joback Method
cpg	913.08	J/mol×K	1084.87	Joback Method
cpg	937.14	J/mol×K	1177.25	Joback Method
cps	399.60	J/mol×K	298.50	NIST Webbook
dvisc	0.0000407	Pa×s	900.12	Joback Method
dvisc	0.0009743	Pa×s	458.46	Joback Method
dvisc	0.0003979	Pa×s	532.07	Joback Method
dvisc	0.0002020	Pa×s	605.68	Joback Method
dvisc	0.0001188	Pa×s	679.29	Joback Method
dvisc	0.0000775	Pa×s	752.90	Joback Method
dvisc	0.0000545	Pa×s	826.51	Joback Method
hsubt	131.40 ± 2.10	kJ/mol	396.50	NIST Webbook

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=C632508&Units=SI

Legend

chs: Standard solid enthalpy of combustion

cpg: Ideal gas heat capacity

cps: Solid phase heat capacity

dvisc: Dynamic viscosity

gf: Standard Gibbs free energy of formation

hf: Enthalpy of formation at standard conditions

hfs:	Solid phase enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hsub:	Enthalpy of sublimation at standard conditions
hsubt:	Enthalpy of sublimation at a given temperature
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