1,2,3,5-Tetraphenylbenzene

Inchi: InChI=1S/C30H22/c1-5-13-23(14-6-1)27-21-28(24-15-7-2-8-16-24)30(26-19-11-4-12-20-2
InchiKey: SKTCWUHHHPSBCJ-UHFFFAOYSA-N
Formula: C30H22
SMILES: c1ccc(-c2cc(-c3ccccc3)c(-c3ccccc3)c(-c3ccccc3)c2)cc1
Mol. weight [g/mol]: 382.50
CAS: 912-61-8

Physical Properties

Property code	Value	Unit	Source
gf	734.88	kJ/mol	Joback Method
hf	485.71	kJ/mol	Joback Method
hfus	42.49	kJ/mol	Joback Method
hvap	95.74	kJ/mol	Joback Method
log10ws	-11.88		Crippen Method
logp	8.355		Crippen Method
mcvol	314.760	ml/mol	McGowan Method
pc	1615.47	kPa	Joback Method
tb	1034.14	K	Joback Method
tc	1323.15	K	Joback Method
tf	597.52	K	Joback Method
vc	1.175	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	976.86	J/mol×K	1034.14	Joback Method
cpg	991.89	J/mol×K	1082.31	Joback Method
cpg	1005.67	J/mol×K	1130.48	Joback Method
cpg	1018.47	J/mol×K	1178.64	Joback Method
cpg	1030.55	J/mol×K	1226.81	Joback Method
cpg	1042.19	J/mol×K	1274.98	Joback Method
cpg	1053.65	J/mol×K	1323.15	Joback Method
dvisc	0.0002934	Pa×s	597.52	Joback Method
dvisc	0.0001656	Pa×s	670.29	Joback Method

dvisc	0.0001045	Pa×s	743.06	Joback Method
dvisc	0.0000716	Pa×s	815.83	Joback Method
dvisc	0.0000522	Pa×s	888.60	Joback Method
dvisc	0.0000399	Pa×s	961.37	Joback Method
dvisc	0.0000317	Pa×s	1034.14	Joback Method

Sources

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=C912618&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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