1,2,3,4-tetraethylbenzene

Inchi: InChI=1S/C14H22/c1-5-11-9-10-12(6-2)14(8-4)13(11)7-3/h9-10H,5-8H2,1-4H3
InchiKey: FEWANSQOXSIFOK-UHFFFAOYSA-N
Formula: C14H22
SMILES: CCc1ccc(CC)c(CC)c1CC
Mol. weight [g/mol]: 190.33

Physical Properties

Property code	Value	Unit	Source
af	0.5620		KDB
gf	150.52	kJ/mol	Joback Method
hf	-130.17	kJ/mol	Joback Method
hfus	24.89	kJ/mol	Joback Method
hvap	51.02	kJ/mol	Joback Method
log10ws	-4.68		Crippen Method
logp	3.936		Crippen Method
mcvol	184.360	ml/mol	McGowan Method
pc	1930.00	kPa	KDB
tb	524.20	K	KDB
tc	708.20	K	KDB
tf	285.00	K	KDB
vc	0.712	m3/kmol	KDB
zc	0.2332060		KDB

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	443.27	J/mol×K	561.34	Joback Method
cpg	521.83	J/mol×K	725.58	Joback Method
cpg	507.66	J/mol×K	692.73	Joback Method
cpg	492.74	J/mol×K	659.89	Joback Method
cpg	477.05	J/mol×K	627.04	Joback Method
cpg	460.57	J/mol×K	594.19	Joback Method
cpg	535.27	J/mol×K	758.43	Joback Method
dvisc	0.0001675	Pa×s	561.34	Joback Method

dvisc	0.0002078	Pa×s	519.70	Joback Method
dvisc	0.0002676	Pa×s	478.07	Joback Method
dvisc	0.0003615	Pa×s	436.43	Joback Method
dvisc	0.0005205	Pa×s	394.79	Joback Method
dvisc	0.0008167	Pa×s	353.16	Joback Method
dvisc	0.0014453	Pa×s	311.52	Joback Method

Sources

Joback Method:	https://en.wikipedia.org/wiki/Joback_method
KDB:	https://www.cheric.org/files/research/kdb/mol/mol708.mol
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

Legend

af:	Acentric Factor
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
zc:	Critical Compressibility