Triphenylene, 1,2,3,4,5,6,7,8,9,10,11,12-dodecahydro-

Other names: Dodecahydrotriphenylene
Tritetralin
1,2,3,4,5,6,7,8,9,10,11,12-Dodecahydrotriphenylene
Dodecahydrotri-o-phenylene

Inchi: InChI=1S/C18H24/c1-2-8-14-13(7-1)15-9-3-4-11-17(15)18-12-6-5-10-16(14)18/h1-12H2

InchiKey: ODHYDPYRIQKHCI-UHFFFAOYSA-N

Formula: C18H24

SMILES: C1CCc2c(c3c(c4c2CCCC4)CCCC3)C1

Mol. weight [g/mol]: 240.38

CAS: 1610-39-5

Physical Properties

Property code	Value	Unit	Source
chs	-10319.20 ± 1.40	kJ/mol	NIST Webbook
gf	334.02	kJ/mol	Joback Method
hf	25.27	kJ/mol	Joback Method
hfs	-193.90 ± 1.70	kJ/mol	NIST Webbook
hfus	19.36	kJ/mol	Joback Method
hvap	62.43	kJ/mol	Joback Method
ie	8.60 ± 0.03	eV	NIST Webbook
ie	7.70 ± 0.05	eV	NIST Webbook
log10ws	-5.97		Crippen Method
logp	4.323		Crippen Method
mcvol	208.140	ml/mol	McGowan Method
pc	2212.45	kPa	Joback Method
rinpol	386.36		NIST Webbook
tb	709.86	K	Joback Method
tc	958.95	K	Joback Method
tf	509.15 ± 1.00	K	NIST Webbook
vc	0.785	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source

cpg	614.13	J/mol×K	709.86	Joback Method
cpg	635.71	J/mol×K	751.38	Joback Method
cpg	655.76	J/mol×K	792.89	Joback Method
cpg	674.45	J/mol×K	834.41	Joback Method
cpg	691.94	J/mol×K	875.92	Joback Method
cpg	708.41	J/mol×K	917.44	Joback Method
cpg	724.04	J/mol×K	958.95	Joback Method
dvisc	0.0021848	Pa×s	437.62	Joback Method
dvisc	0.0015437	Pa×s	482.99	Joback Method
dvisc	0.0011577	Pa×s	528.37	Joback Method
dvisc	0.0009087	Pa×s	573.74	Joback Method
dvisc	0.0007390	Pa×s	619.11	Joback Method
dvisc	0.0006182	Pa×s	664.49	Joback Method
dvisc	0.0005291	Pa×s	709.86	Joback Method

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C1610395&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

chs: Standard solid enthalpy of combustion
cpg: Ideal gas 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
hvap: Enthalpy of vaporization at standard conditions
ie: Ionization energy
log10ws: Log10 of Water solubility in mol/l
logp: Octanol/Water partition coefficient
mcvol: McGowan's characteristic volume
pc: Critical Pressure

rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume