Benzene, 1,1'-tetradecylidenebis-

Other names:	1,1-Diphenyltetradecane
Inchi:	InChI=1S/C26H38/c1-2-3-4-5-6-7-8-9-10-11-18-23-26(24-19-14-12-15-20-24)25-21-16-1
InchiKey:	RHISRDQWNQEBBY-UHFFFAOYSA-N
Formula:	C26H38
SMILES:	CCCCCCCCCCCCCC(c1ccccc1)c1ccccc1
Mol. weight [g/mol]:	350.58
CAS:	55268-63-8

Physical Properties

Property code	Value	Unit	Source
gf	390.42	kJ/mol	Joback Method
hf	-112.19	kJ/mol	Joback Method
hfus	47.65	kJ/mol	Joback Method
hvap	77.63	kJ/mol	Joback Method
log10ws	-8.98		Crippen Method
logp	8.520		Crippen Method
mcvol	329.680	ml/mol	McGowan Method
pc	1079.22	kPa	Joback Method
tb	847.20	K	Joback Method
tc	1054.16	K	Joback Method
tf	291.10 ± 1.00	K	NIST Webbook
tf	291.10 ± 0.60	K	NIST Webbook
vc	1.270	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1043.74	J/mol×K	847.20	Joback Method
cpg	1063.96	J/mol×K	881.69	Joback Method
cpg	1082.91	J/mol×K	916.19	Joback Method
cpg	1100.67	J/mol×K	950.68	Joback Method
cpg	1117.34	J/mol×K	985.17	Joback Method
cpg	1132.99	J/mol×K	1019.67	Joback Method
cpg	1147.71	J/mol×K	1054.16	Joback Method

dvisc	0.0012925	Pa×s	420.62	Joback Method
dvisc	0.0004830	Pa×s	491.72	Joback Method
dvisc	0.0002315	Pa×s	562.81	Joback Method
dvisc	0.0001308	Pa×s	633.91	Joback Method
dvisc	0.0000830	Pa×s	705.01	Joback Method
dvisc	0.0000572	Pa×s	776.10	Joback Method
dvisc	0.0000420	Pa×s	847.20	Joback Method
hvapt	98.20	kJ/mol	498.50	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.27452e+01
Coeff. B	-4.74261e+03
Coeff. C	-1.29120e+02
Temperature range (K), min.	509.82
Temperature range (K), max.	767.11

Sources

The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure
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=C55268638&Units=SI

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
hvapt:	Enthalpy of vaporization at a given temperature
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
pvap:	Vapor pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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