Benzene, 1,1'-propylidenebis-

Other names: 1,1-Diphenylpropane
Inchi: InChI=1S/C15H16/c1-2-15(13-9-5-3-6-10-13)14-11-7-4-8-12-14/h3-12,15H,2H2,1H3
InchiKey: BUZMJVBOGDBMGI-UHFFFAOYSA-N
Formula: C15H16
SMILES: CCC(c1ccccc1)c1ccccc1
Mol. weight [g/mol]: 196.29
CAS: 1530-03-6

Physical Properties

Property code	Value	Unit	Source
chl	-7887.00	kJ/mol	NIST Webbook
chl	-8245.00	kJ/mol	NIST Webbook
gf	297.80	kJ/mol	Joback Method
hf	114.85	kJ/mol	Joback Method
hfus	19.17	kJ/mol	Joback Method
hvap	72.80 ± 0.40	kJ/mol	NIST Webbook
log10ws	-4.37		Crippen Method
logp	4.229		Crippen Method
mcvol	174.690	ml/mol	McGowan Method
pc	2530.27	kPa	Joback Method
tb	595.52	K	Joback Method
tc	835.47	K	Joback Method
tf	267.00 ± 3.00	K	NIST Webbook
tf	286.44 ± 0.50	K	NIST Webbook
tf	286.44 ± 0.20	K	NIST Webbook
vc	0.653	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	421.98	J/mol×K	595.52	Joback Method
cpg	440.72	J/mol×K	635.51	Joback Method
cpg	458.04	J/mol×K	675.50	Joback Method
cpg	474.03	J/mol×K	715.49	Joback Method

cpg	488.77	J/mol×K	755.48	Joback Method
cpg	502.35	J/mol×K	795.47	Joback Method
cpg	514.85	J/mol×K	835.47	Joback Method
dvisc	0.0033832	Pa×s	296.65	Joback Method
dvisc	0.0013953	Pa×s	346.46	Joback Method
dvisc	0.0007190	Pa×s	396.27	Joback Method
dvisc	0.0004296	Pa×s	446.09	Joback Method
dvisc	0.0002847	Pa×s	495.90	Joback Method
dvisc	0.0002034	Pa×s	545.71	Joback Method
dvisc	0.0001537	Pa×s	595.52	Joback Method
hvapt	71.40 ± 0.40	kJ/mol	320.50	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.48886e+01
Coeff. B	-4.76580e+03
Coeff. C	-8.79610e+01
Temperature range (K), min.	414.36
Temperature range (K), max.	585.58

Sources

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=C1530036&Units=SI

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

Legend

chl: Standard liquid 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
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