Propane, 1,1,2,3,3-pentachloro-

Other names: 1,1,2,3,3-Pentachloropropane
Inchi: InChI=1S/C3H3Cl5/c4-1(2(5)6)3(7)8/h1-3H
InchiKey: PANVCEBTPSTUEL-UHFFFAOYSA-N
Formula: C3H3Cl5
SMILES: ClC(Cl)C(Cl)C(Cl)Cl
Mol. weight [g/mol]: 216.32
CAS: 15104-61-7

Physical Properties

Property code	Value	Unit	Source
gf	-92.59	kJ/mol	Joback Method
hf	-199.79	kJ/mol	Joback Method
hfus	13.94	kJ/mol	Joback Method
hvap	43.03	kJ/mol	Joback Method
log10ws	-3.17		Crippen Method
logp	3.201		Crippen Method
mcvol	114.330	ml/mol	McGowan Method
pc	3598.56	kPa	Joback Method
rinpol	1119.00		NIST Webbook
tb	472.20	K	NIST Webbook
tc	675.61	K	Joback Method
tf	228.17	K	Joback Method
vc	0.430	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	168.76	J/mol×K	453.87	Joback Method
cpg	192.37	J/mol×K	638.65	Joback Method
cpg	188.39	J/mol×K	601.69	Joback Method
cpg	184.06	J/mol×K	564.74	Joback Method
cpg	179.36	J/mol×K	527.78	Joback Method
cpg	174.27	J/mol×K	490.83	Joback Method
cpg	196.02	J/mol×K	675.61	Joback Method

dvisc	0.0003743	Pa×s	453.87	Joback Method
dvisc	0.0005109	Pa×s	416.25	Joback Method
dvisc	0.0007419	Pa×s	378.64	Joback Method
dvisc	0.0011697	Pa×s	341.02	Joback Method
dvisc	0.0020648	Pa×s	303.40	Joback Method
dvisc	0.0042806	Pa×s	265.79	Joback Method
dvisc	0.0112863	Pa×s	228.17	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.40858e+01
Coeff. B	-3.78501e+03
Coeff. C	-7.24080e+01
Temperature range (K), min.	346.72
Temperature range (K), max.	503.78

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C15104617&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

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

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