Propane, 1,1,2,3-tetrachloro-2-methyl-

Other names: 1,1,2,3-tetrachloro-2-methylpropane
Inchi: InChI=1S/C4H6Cl4/c1-4(8,2-5)3(6)7/h3H,2H2,1H3
InchiKey: WAURADWXPYHJJA-UHFFFAOYSA-N
Formula: C4H6Cl4
SMILES: CC(Cl)(CCl)C(Cl)Cl
Mol. weight [g/mol]: 195.90
CAS: 18963-01-4

Physical Properties

Property code	Value	Unit	Source
gf	-64.52	kJ/mol	Joback Method
hf	-202.88	kJ/mol	Joback Method
hfus	11.97	kJ/mol	Joback Method
hvap	40.35	kJ/mol	Joback Method
log10ws	-2.83		Crippen Method
logp	3.026		Crippen Method
mcvol	116.180	ml/mol	McGowan Method
pc	3368.44	kPa	Joback Method
rinpol	1047.00		NIST Webbook
tb	464.10 ± 2.00	K	NIST Webbook
tc	653.13	K	Joback Method
tf	227.00 ± 3.00	K	NIST Webbook
vc	0.439	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	187.81	J/mol×K	436.97	Joback Method
cpg	195.82	J/mol×K	473.00	Joback Method
cpg	203.18	J/mol×K	509.02	Joback Method
cpg	209.95	J/mol×K	545.05	Joback Method
cpg	216.16	J/mol×K	581.07	Joback Method
cpg	221.85	J/mol×K	617.10	Joback Method
cpg	227.06	J/mol×K	653.13	Joback Method

dvisc	0.0083832	Pa×s	241.94	Joback Method
dvisc	0.0037365	Pa×s	274.44	Joback Method
dvisc	0.0019762	Pa×s	306.95	Joback Method
dvisc	0.0011808	Pa×s	339.46	Joback Method
dvisc	0.0007720	Pa×s	371.96	Joback Method
dvisc	0.0005404	Pa×s	404.47	Joback Method
dvisc	0.0003989	Pa×s	436.97	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.44875e+01
Coeff. B	-3.88901e+03
Coeff. C	-7.00450e+01
Temperature range (K), min.	343.92
Temperature range (K), max.	493.87

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C18963014&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