Propane, 1,2,2-tribromo-

Other names: 1,2,2-Tribromopropane
Inchi: InChI=1S/C3H5Br3/c1-3(5,6)2-4/h2H2,1H3
InchiKey: IELJYJRPJJILHQ-UHFFFAOYSA-N
Formula: C3H5Br3
SMILES: CC(Br)(Br)CBr
Mol. weight [g/mol]: 280.78
CAS: 14476-30-3

Physical Properties

Property code	Value	Unit	Source
gf	20.18	kJ/mol	Joback Method
hf	-35.01	kJ/mol	Joback Method
hfus	11.97	kJ/mol	Joback Method
hvap	40.28	kJ/mol	Joback Method
log10ws	-2.98		Crippen Method
logp	2.887		Crippen Method
mcvol	105.630	ml/mol	McGowan Method
pc	6103.52	kPa	Joback Method
tb	463.70	K	NIST Webbook
tc	707.88	K	Joback Method
tf	305.39	K	Joback Method
vc	0.379	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	152.43	J/mol×K	463.29	Joback Method
cpg	158.97	J/mol×K	504.05	Joback Method
cpg	164.77	J/mol×K	544.82	Joback Method
cpg	169.90	J/mol×K	585.58	Joback Method
cpg	174.44	J/mol×K	626.35	Joback Method
cpg	178.48	J/mol×K	667.11	Joback Method
cpg	182.09	J/mol×K	707.88	Joback Method
dvisc	0.0031426	Pa×s	305.39	Joback Method

dvisc	0.0020270	Pa×s	331.71	Joback Method
dvisc	0.0013945	Pa×s	358.02	Joback Method
dvisc	0.0010098	Pa×s	384.34	Joback Method
dvisc	0.0007621	Pa×s	410.66	Joback Method
dvisc	0.0005950	Pa×s	436.97	Joback Method
dvisc	0.0004778	Pa×s	463.29	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	354.20	K	2.70	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.51223e+01
Coeff. B	-4.13350e+03
Coeff. C	-7.01840e+01
Temperature range (K), min.	348.82
Temperature range (K), max.	492.10

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C14476303&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

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
tb:	Normal Boiling Point Temperature
tbrp:	Boiling point at reduced pressure
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume