Propane, 1,1,2-tribromo-

Other names: 1,1,2-Tribromopropane
Inchi: InChI=1S/C3H5Br3/c1-2(4)3(5)6/h2-3H,1H3
InchiKey: ZLOLQHBVMYXNHX-UHFFFAOYSA-N
Formula: C3H5Br3
SMILES: CC(Br)C(Br)Br
Mol. weight [g/mol]: 280.78
CAS: 14602-62-1

Physical Properties

Property code	Value	Unit	Source
gf	12.46	kJ/mol	Joback Method
hf	-36.82	kJ/mol	Joback Method
hfus	12.33	kJ/mol	Joback Method
hvap	40.80	kJ/mol	Joback Method
log10ws	-3.09		Crippen Method
logp	2.886		Crippen Method
mcvol	105.630	ml/mol	McGowan Method
pc	6075.01	kPa	Joback Method
tb	465.64	K	Joback Method
tc	705.27	K	Joback Method
tf	272.97	K	Joback Method
vc	0.378	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	149.36	J/mol×K	465.64	Joback Method
cpg	155.53	J/mol×K	505.58	Joback Method
cpg	161.17	J/mol×K	545.52	Joback Method
cpg	166.31	J/mol×K	585.46	Joback Method
cpg	171.01	J/mol×K	625.39	Joback Method
cpg	175.32	J/mol×K	665.33	Joback Method
cpg	179.28	J/mol×K	705.27	Joback Method
dvisc	0.0043204	Pa×s	272.97	Joback Method

dvisc	0.0024016	Pa×s	305.08	Joback Method
dvisc	0.0014929	Pa×s	337.19	Joback Method
dvisc	0.0010081	Pa×s	369.31	Joback Method
dvisc	0.0007248	Pa×s	401.42	Joback Method
dvisc	0.0005472	Pa×s	433.53	Joback Method
dvisc	0.0004295	Pa×s	465.64	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.49957e+01
Coeff. B	-4.17498e+03
Coeff. C	-7.29640e+01
Temperature range (K), min.	356.82
Temperature range (K), max.	504.08

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=C14602621&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

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