Ethane, 1,1,2-tribromo-

Other names: 1,1,2-Tribromoethane
Inchi: InChI=1S/C2H3Br3/c3-1-2(4)5/h2H,1H2
InchiKey: QUMDOMSJJIFTCA-UHFFFAOYSA-N
Formula: C2H3Br3
SMILES: BrCC(Br)Br
Mol. weight [g/mol]: 266.76
CAS: 78-74-0

Physical Properties

Property code	Value	Unit	Source
gf	6.48	kJ/mol	Joback Method
hf	-10.90	kJ/mol	Joback Method
hfus	13.27	kJ/mol	Joback Method
hvap	38.96	kJ/mol	Joback Method
log10ws	-2.56		Crippen Method
logp	2.497		Crippen Method
mcvol	91.540	ml/mol	McGowan Method
pc	7002.68	kPa	Joback Method
tb	443.20	K	Joback Method
tc	680.89	K	Joback Method
tf	276.70	K	Joback Method
vc	0.328	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	113.82	J/mol×K	443.20	Joback Method
cpg	131.33	J/mol×K	641.27	Joback Method
cpg	128.51	J/mol×K	601.66	Joback Method
cpg	125.40	J/mol×K	562.04	Joback Method
cpg	121.94	J/mol×K	522.43	Joback Method
cpg	118.09	J/mol×K	482.81	Joback Method
cpg	133.88	J/mol×K	680.89	Joback Method
dvisc	0.0004988	Pa×s	443.20	Joback Method

dvisc	0.0006151	Pa×s	415.45	Joback Method
dvisc	0.0007817	Pa×s	387.70	Joback Method
dvisc	0.0010308	Pa×s	359.95	Joback Method
dvisc	0.0014235	Pa×s	332.20	Joback Method
dvisc	0.0020849	Pa×s	304.45	Joback Method
dvisc	0.0032967	Pa×s	276.70	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.50765e+01
Coeff. B	-4.10474e+03
Coeff. C	-6.96080e+01
Temperature range (K), min.	347.16
Temperature range (K), max.	489.96

Sources

Crippen Method: https://www.chemeo.com/doc/models/crippen_log10ws

Joback Method: https://en.wikipedia.org/wiki/Joback_method

KDB: https://www.cheric.org/files/research/kdb/mol/mol1564.mol

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

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C78740&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

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