Ethane, 1,2-dibromo-1,2-dichloro-

Other names: 1,2-Dibromo-1,2-dichloroethane
1,2-Dichloro-1,2-dibromoethane
Inchi: InChI=1S/C2H2Br2Cl2/c3-1(5)2(4)6/h1-2H
InchiKey: RJMDFMUPJANPGX-UHFFFAOYSA-N
Formula: C2H2Br2Cl2
SMILES: ClC(Br)C(Cl)Br
Mol. weight [g/mol]: 256.75
CAS: 683-68-1

Physical Properties

Property code	Value	Unit	Source
gf	-34.14	kJ/mol	Joback Method
hf	-73.99	kJ/mol	Joback Method
hfus	12.85	kJ/mol	Joback Method
hvap	40.91	kJ/mol	Joback Method
log10ws	-3.04		Crippen Method
logp	2.906		Crippen Method
mcvol	98.520	ml/mol	McGowan Method
pc	5653.23	kPa	Joback Method
rinpol	1073.00		NIST Webbook
rinpol	1073.00		NIST Webbook
tb	468.20	K	NIST Webbook
tc	689.12	K	Joback Method
tf	261.74	K	Joback Method
vc	0.357	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	144.99	J/mol×K	689.12	Joback Method
cpg	126.27	J/mol×K	451.46	Joback Method
cpg	130.30	J/mol×K	491.07	Joback Method
cpg	133.91	J/mol×K	530.68	Joback Method
cpg	137.15	J/mol×K	570.29	Joback Method

cpg	140.05	J/mol×K	609.90	Joback Method
cpg	142.65	J/mol×K	649.51	Joback Method
dvisc	0.0004569	Pa×s	451.46	Joback Method
dvisc	0.0049706	Pa×s	261.74	Joback Method
dvisc	0.0026949	Pa×s	293.36	Joback Method
dvisc	0.0016459	Pa×s	324.98	Joback Method
dvisc	0.0010971	Pa×s	356.60	Joback Method
dvisc	0.0007812	Pa×s	388.22	Joback Method
dvisc	0.0005855	Pa×s	419.84	Joback Method
hvapt	45.90	kJ/mol	349.50	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.74227e+01
Coeff. B	-6.28397e+03
Coeff. C	2.26160e+01
Temperature range (K), min.	344.11
Temperature range (K), max.	496.24

Sources

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=C683681&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
hvapt:	Enthalpy of vaporization at a given temperature
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