Ethane, 1,2-dibromo-1,1-difluoro-

Other names:	1,1-Difluoro-1,2-dibromoethane
	1,2-Dibromo-1,1-difluoroethane
	CF2BrCH2Br
	Difluorodibromoethane
	Genetron 132b-B2
Inchi:	InChI=1S/C2H2Br2F2/c3-1-2(4,5)6/h1H2
InchiKey:	DPOZWTRVXPUOQW-UHFFFAOYSA-N
Formula:	C2H2Br2F2
SMILES:	FC(F)(Br)CBr
Mol. weight [g/mol]:	223.84
CAS:	75-82-1

Physical Properties

Property code	Value	Unit	Source
gf	-392.18	kJ/mol	Joback Method
hf	-432.92	kJ/mol	Joback Method
hfus	10.25	kJ/mol	Joback Method
hvap	29.99	kJ/mol	Joback Method
ie	10.83 ± 0.01	eV	NIST Webbook
ie	10.86 ± 0.01	eV	NIST Webbook
log10ws	-2.33		Crippen Method
logp	2.369		Crippen Method
mcvol	77.580	ml/mol	McGowan Method
pc	5544.32	kPa	Joback Method
tb	365.50 ± 0.50	K	NIST Webbook
tb	365.70	K	NIST Webbook
tc	573.29	K	Joback Method
tf	235.50	K	Joback Method
vc	0.296	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	128.05	J/mol×K	506.46	Joback Method

cpg	131.45	J/mol×K	539.88	Joback Method
cpg	109.98	J/mol×K	372.79	Joback Method
cpg	115.24	J/mol×K	406.21	Joback Method
cpg	119.98	J/mol×K	439.62	Joback Method
cpg	124.24	J/mol×K	473.04	Joback Method
cpg	134.48	J/mol×K	573.29	Joback Method
hfust	8.30	kJ/mol	206.30	NIST Webbook
hfust	8.30	kJ/mol	206.30	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.42656e+01
Coeff. B	-3.11318e+03
Coeff. C	-4.28010e+01
Temperature range (K), min.	265.52
Temperature range (K), max.	390.68

Sources

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=C75821&Units=SI

The Yaws Handbook of Vapor Pressure: https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure

Legend

cpg: Ideal gas heat capacity

gf: Standard Gibbs free energy of formation

hf: Enthalpy of formation at standard conditions

hfus: Enthalpy of fusion at standard conditions

hfust:	Enthalpy of fusion at a given temperature
hvap:	Enthalpy of vaporization at standard conditions
ie:	Ionization energy
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