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

Other names: 1,2-Dibromo-1,2-dichloro-1,2-difluoro ethane
Inchi: InChI=1S/C2Br2Cl2F2/c3-1(5,7)2(4,6)8
InchiKey: RPMZQJWSCXMMBE-UHFFFAOYSA-N
Formula: C2Br2Cl2F2
SMILES: FC(Cl)(Br)C(F)(Cl)Br
Mol. weight [g/mol]: 292.73
CAS: 421-69-2

Physical Properties

Property code	Value	Unit	Source
gf	-413.20	kJ/mol	Joback Method
hf	-473.15	kJ/mol	Joback Method
hfus	11.23	kJ/mol	Joback Method
hvap	37.46	kJ/mol	Joback Method
log10ws	-3.74		Crippen Method
logp	3.500		Crippen Method
mcvol	102.060	ml/mol	McGowan Method
pc	5116.65	kPa	Joback Method
tb	444.42	K	Joback Method
tc	676.06	K	Joback Method
tf	297.76	K	Joback Method
vc	0.384	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	149.79	J/mol×K	444.42	Joback Method
cpg	154.60	J/mol×K	483.03	Joback Method
cpg	158.58	J/mol×K	521.63	Joback Method
cpg	161.83	J/mol×K	560.24	Joback Method
cpg	164.42	J/mol×K	598.85	Joback Method
cpg	166.45	J/mol×K	637.45	Joback Method
cpg	168.01	J/mol×K	676.06	Joback Method

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=C421692&Units=SI

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