FCH2CH2

Inchi: InChI=1S/C2H4F/c1-2-3/h1-2H2
InchiKey: VHPYNVZYZFYVII-UHFFFAOYSA-N
Formula: C2H4F
SMILES: [CH2]CF
Mol. weight [g/mol]: 47.05
CAS: 28761-00-4

Physical Properties

Property code	Value	Unit	Source
gf	-176.47	kJ/mol	Joback Method
hf	-224.91	kJ/mol	Joback Method
hfus	5.70	kJ/mol	Joback Method
hvap	19.08	kJ/mol	Joback Method
log10ws	-0.12		Crippen Method
logp	0.790		Crippen Method
mcvol	38.660	ml/mol	McGowan Method
pc	5022.80	kPa	Joback Method
tb	243.73	K	Joback Method
tc	387.61	K	Joback Method
tf	129.26	K	Joback Method
vc	0.157	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	45.48	J/mol×K	243.73	Joback Method
cpg	49.70	J/mol×K	267.71	Joback Method
cpg	53.67	J/mol×K	291.69	Joback Method
cpg	57.42	J/mol×K	315.67	Joback Method
cpg	60.95	J/mol×K	339.65	Joback Method
cpg	64.27	J/mol×K	363.63	Joback Method
cpg	67.40	J/mol×K	387.61	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=C28761004&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