

Hydrogen fluoride

Inchi:	InChI=1S/7FH/h7*1H
InchiKey:	HKCCZYKCEQAFNJ-UHFFFAOYSA-N
Formula:	F7H7
SMILES:	F.F.F.F.F.F.F
Mol. weight [g/mol]:	140.04
CAS:	74835-82-8

Physical Properties

Property code	Value	Unit	Source
gf	-1676.45	kJ/mol	Joback Method
hf	-1695.15	kJ/mol	Joback Method
hfus	8.91	kJ/mol	Joback Method
hvap	10.61	kJ/mol	Joback Method
log10ws	-0.75		Crippen Method
logp	1.068		Crippen Method
mcvol	88.410	ml/mol	McGowan Method
pc	2558.51	kPa	Joback Method
tb	197.79	K	Joback Method
tc	302.92	K	Joback Method
vc	0.206	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	95.72	J/mol×K	197.79	Joback Method
cpg	93.89	J/mol×K	215.31	Joback Method
cpg	92.44	J/mol×K	232.83	Joback Method
cpg	91.35	J/mol×K	250.36	Joback Method
cpg	90.61	J/mol×K	267.88	Joback Method
cpg	90.19	J/mol×K	285.40	Joback Method
cpg	90.08	J/mol×K	302.92	Joback Method

Sources

Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
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=C74835828&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
vc:	Critical Volume

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