

Hydrogen fluoride

Inchi:	InChI=1S/5FH/h5*1H
InchiKey:	PPTLZWDQFVTCOG-UHFFFAOYSA-N
Formula:	F5H5
SMILES:	F.F.F.F.F
Mol. weight [g/mol]:	100.03
CAS:	74835-81-7

Physical Properties

Property code	Value	Unit	Source
gf	-1182.07	kJ/mol	Joback Method
hf	-1191.31	kJ/mol	Joback Method
hfus	6.11	kJ/mol	Joback Method
hvap	11.95	kJ/mol	Joback Method
log10ws	-0.45		Crippen Method
logp	0.762		Crippen Method
mcvol	63.150	ml/mol	McGowan Method
pc	3322.01	kPa	Joback Method
tb	197.85	K	Joback Method
tc	311.83	K	Joback Method
vc	0.152	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	65.48	J/molxK	197.85	Joback Method
cpg	64.49	J/molxK	216.85	Joback Method
cpg	63.75	J/molxK	235.84	Joback Method
cpg	63.27	J/molxK	254.84	Joback Method
cpg	63.02	J/molxK	273.84	Joback Method
cpg	62.99	J/molxK	292.83	Joback Method
cpg	63.18	J/molxK	311.83	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C74835817&Units=SI
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

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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