All statements and information are believed to be accurate and reliable, they are presented without guarantee or warranty of any kind, express or implied. Information provided herein does not relieve the user from the responsibility of carrying out its own tests and experiments, and the user assumes all risks and liability for results obtained.
Corrosion Rates of Carbon Steel Vs. HF Concentration

![Graph showing corrosion rates of carbon steel vs. HF concentration. The x-axis represents weight percent of HF, and the y-axis represents MILS per year. The graph shows two curves: one for liquid HF and another for vapor over liquid. The liquid HF curve peaks around 30 weight percent, while the vapor over liquid curve is relatively flat.]

All statements and information are believed to be accurate and reliable, they are presented without guarantee or warranty of any kind, express or implied. Information provided herein does not relieve the user from the responsibility of carrying out its own tests and experiments, and the user assumes all risks and liability for results obtained.
Freezing Points of Aqueous Hydrofluoric Acid

H2O • HF

H2O • 2HF

H2O • 4HF

Temperature, °F

Weight Percent HF
pH Vs. Hydrofluoric Acid Concentration

Weight Percent HF

pH

0 5 10 15 20 25 30 35 40 45 50
Specific Gravity HF-H₂O System

Weight Percent HF

Specific Gravity

Temperature:
- 32°F
- 60°F
- 80°F
- 100°F
- 120°F
Density of Anhydrous Hydrogen Fluoride

![Graph showing the density of anhydrous hydrogen fluoride against temperature. The x-axis represents temperature in °F, ranging from -200 to 400, and the y-axis represents density in g/ml, ranging from 0.4 to 1.3. The graph shows a downward trend as temperature increases.]
Apparent Molecular Weight, Hydrogen Fluoride

![Graph showing apparent molecular weight vs. temperature for different saturation pressures.](image-url)
Boiling Point of HF-H₂O System
Partial Vapor Pressure of HF over Aqueous Solutions of HF

Vapor Pressure of HF Gas, mmHg

Temperature, °F

Weight % HF in Solution
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
Vapor Pressure Anhydrous Hydrogen Fluoride

Temperature, °F

Vapor Pressure, Psia
Vapor Pressure of Anhydrous Hydrogen Fluoride

Gage Pressure, Pounds per Square Inch

Temperature, °F
Vapor Liquid Equilibrium Diagram at the Normal Boiling Point

Weight Percent HF in Vapor

Weight Percent HF in Liquid

All statements and information are believed to be accurate and reliable, they are presented without guarantee or warranty of any kind, express or implied. Information provided herein does not relieve the user from the responsibility of carrying out its own tests and experiments, and the user assumes all risks and liability for results obtained.
Specific Volume of HF Gas

Temperature, °C

Specific Volume, ft³/lb
Heat of Vaporization, Anhydrous Hydrogen Fluoride

Heat of Vaporization, Btu/lb

Temperature, °F
Specific Heat HF-H₂O System

![Graph showing specific heat for HF-H₂O system.](image-url)
Specific Heat Liquid AHF

Temperature, °F

Specific Heat
Enthalpy Hydrogen Fluoride Gas

![Graph showing enthalpy vs. temperature for hydrogen fluoride gas.](image-url)
Enthalpy Concentration Chart for HF- H₂O System at 1 Atm

All statements and information are believed to be accurate and reliable, they are presented without guarantee or warranty of any kind, express or implied. Information provided herein does not relieve the user from the responsibility of carrying out its own tests and experiments, and the user assumes all risks and liability for results obtained.
Hydrogen Fluoride, Temperature Vs. Enthalpy
Heat of Dilution for Anhydrous Hydrogen Fluoride
Viscosity of HF Gas

- Temperature, °F
- Viscosity, centipoise

For 0 Atmosphere and 1 Atmosphere.
Viscosity of Commercial Anhydrous Hydrofluoric Acid

Temperature, °F

Viscosity, centipoise
Thermal Conductivity of Anhydrous Hydrogen Fluoride

![Graph showing the thermal conductivity of anhydrous hydrogen fluoride as a function of temperature. The graph plots BTU/FT x HR x °F on the y-axis against Temperature, °F on the x-axis. The data points are differentiated between liquid and gas phases.]
Conductivity of Hydrofluoric Acid

Conductivity, Reciprocal Ohms per centimeter cube x 10^4 @ 32 °F

Weight Percent HF

Conductivity of Hydrofluoric Acid

Conductivity, Reciprocal Ohms per centimeter cube x 10^4 @ 32 °F

Weight Percent HF
Conductivity of Hydrofluoric Acid

Conductivity, Reciprocal Ohms per centimeter cube x 10^4 @32 °F

Weight Percent HF