AQUABOND
Chemistry for Tomorrow

Summary Technical Data Sheet

Product Name: Hydrofluoric Acid 49%
CAS Number: 7664-39-3

Formula: HF
Molecular weight: 20.1 g/mol. **Grade:** Technical

Typical Properties

- Physical Description: Clear,slightly fuming and highly corrosive liquid
- Appearance: Colourless to slightly tinted
- Specific Gravity @ 20^0C: 1.17
- Acidity pKa: 3.17
- Boiling Range: 104^0C - 107^0C



Product Specifications

Properties	Specification	Typical
Appearance:	Clear Fuming Liquid	
Specific Gravity:	1.15 - 1.19	1.17
Acidity pKa:	3.16 - 3.18	3.17
HF %	48.0 - 49.9	49.2
H_2SiF_6%	≤ 0.007	0.005
H_2SO_4	≤ 0.007	0.004
SO_2	≤ 0.007	0.004
Fe ppm	≤ 10	2
As ppm	≤ 10	3
Cl ppm	≤ 5	0.5
Cu ppm	≤ 0.1	0.00002
PO_4 ppm	≤ 1	0.01
Residue after Ignition ppm	≤ 5	4

Hydrofluoric Acid 49%

Aqua Bond sells commercially available Hydrofluoric acid 49% repackaged in UN Tight-heads to meet the customers specifications in the surface finishing industry in a wide range of applications. Hydrofluoric acid is a component of household rust stain remover, in car washes in "wheel cleaner" compounds, in ceramic and fabric rust inhibitors, and in water spot removers. Hydrofluoric acid ability to dissolve iron oxides as well as silica-based contaminants, provides excellent application in pre-commissioning boilers that produce high-pressure steam. Hydrofluoric acid is also useful for dissolving rock samples (usually powdered) prior to analysis. In similar manner, this acid is used in acid macerations to extract organic fossils from silicate rocks.

Hydrofluoric acid is different from other acids. It is extremely dangerous and demands the utmost respect when handling. It is a strong, inorganic acid that on contact with live tissue produces immediate necrosis and pain at high concentrations but delayed in showing up at low concentrations. If you are working with Hydrofluoric acid you should have the antidote, calcium gluconate close by since simply washing will not do. Hydrofluoric acid is readily absorbed into the skin binding to the calcium and magnesium in the body to form insoluble salts. These insoluble salts interfere with cellular metabolism causing cellular death and necrosis. See our Brochure and SDS before working with this product.

Storage and Handling: Do not store in metal containers. Keep in a cool, well-ventilated place. Store in a dry place. HF reacts with many materials therefore avoid contact with glass, concrete, metals, water, other acids, oxidizers, reducers, alkali, combustibles, organics and ceramics.

Packaging: Tight-heads; 22,68 Kg, HDPE Drums; 226,8 kg
Transport Regulations: Hydrofluoric acid 8(6.1), UN 1790, PGII

The above information, while not guaranteed, reflects our analysis and believed to be accurate. It is the end user's responsibility, prior to use of the above mentioned product to determine the suitability of the product. Aqua Bond shall not be, directly or indirectly responsible for damages of any nature whatsoever resulting from the use or reliance upon the above information.

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