

**Hydrofluoric acid, solution 48% w/w, for analysis, ExpertQ®, ACS, ISO****Identification**

HF  
M = 20,00 g/mol  
CAS [7664-39-3]  
EC number: 231-634-8  
Taric code: 2811 11 00

**Applications**

analytical chemistry, acidifying agent, dissolution agent for silicates.

**Specifications**

assay (acidimetric).....	48,0 - 51,0 %	heavy metals (as Pb).....	max. 0,5 ppm
colour (Hazen).....	max. 10	iron (Fe).....	max. 0,1 ppm
hexafluorosilicic acid (H <sub>2</sub> SiF <sub>6</sub> ) .....	max. 0,005 %	lead (Pb).....	max. 0,02 ppm
chlorides (Cl).....	max. 0,0001 %	lithium (Li).....	max. 0,01 ppm
phosphates (as PO <sub>4</sub> ).....	max. 0,00001 %	magnesium (Mg).....	max. 0,1 ppm
sulfates (SO <sub>4</sub> ).....	max. 0,0001 %	manganese (Mn).....	max. 0,03 ppm
sulfites (SO <sub>3</sub> ) .....	max. 0,0002 %	molybdenum (Mo).....	max. 0,02 ppm
aluminium (Al).....	max. 0,05 ppm	nickel (Ni).....	max. 0,02 ppm
arsenic (As).....	max. 0,05 ppm	potassium (K).....	max. 0,1 ppm
barium (Ba).....	max. 0,01 ppm	silver (Ag).....	max. 0,02 ppm
beryllium (Be).....	max. 0,02 ppm	sodium (Na).....	max. 0,2 ppm
bismuth (Bi).....	max. 0,02 ppm	strontium (Sr) .....	max. 0,02 ppm
cadmium (Cd).....	max. 0,01 ppm	thallium (Tl).....	max. 0,02 ppm
calcium (Ca).....	max. 0,2 ppm	titanium (Ti).....	max. 0,02 ppm
chromium (Cr).....	max. 0,01 ppm	vanadium (V).....	max. 0,02 ppm
cobalt (Co).....	max. 0,02 ppm	zinc (Zn).....	max. 0,05 ppm
copper (Cu).....	max. 0,02 ppm	zirconium (Zr).....	max. 0,02 ppm
germanium (Ge).....	max. 0,02 ppm	residue on ignition.....	max. 0,0005 %

**Physical data**

- Density: 1,16 g/cm<sup>3</sup>
- Solub. in water: (20 °C): miscible
- Melting point: ~ -35 °C
- Boiling point: ~ 106 °C
- pH(20 °C) < 1

**Safety - GHS**

**Signal Word:** Danger

**Hazard Statements:**

- H310: Fatal in contact with skin.  
H330: Fatal if inhaled.  
H314: Causes severe skin burns and eye damage.

**Precautionary Statements:**

- P260: Do not breathe dust / fume / gas / mist / vapours / spray.  
P303+P361+P353: IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower.  
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310: Immediately call a POISON CENTER or doctor / physician.  
P320: Specific treatment is urgent (see on this label).  
P405: Store locked up.  
P501a: Dispose of contents / container in accordance with local / regional / national / international regulations.

**Transport/storage**

- ADR: 8 CT1 II • UN 1790 • HYDROFLUORIC ACID
- IMDG: 8 II • UN 1790 • HYDROFLUORIC ACID
- IATA/ICAO: 8 II • UN 1790 • HYDROFLUORIC ACID
- PAX: 809
- CAO: 813
- 10°C - 30°C