



**Molecular Weight:** 158.559  
**Accurate Mass:** 157.99347  
**Percentage Composition:** C 53.03%; H 2.54%; Cl 22.36%; F 11.98%; O 10.09%  
**Use/Importance:** Reagent for characterisation of alcohols, phenols, carboxylic acids, amines and thiols by F-19 nmr  
**Melting Point:** Mp 9°  
**Boiling Point:** Bp 193°  
**Hazard & Toxicity:** Lachrymator  
**Aldrich:** 11994-6  
**Fluka:** 46760  
**Sigma:** F0501

>>Derivative: Amide

**CAS Registry Number:** 824-75-9  
**Molecular Formula:** C<sub>7</sub>H<sub>6</sub>FNO  
**Molecular Weight:** 139.129  
**Accurate Mass:** 139.043342  
**Percentage Composition:** C 60.43%; H 4.35%; F 13.66%; N 10.07%; O 11.50%  
**Melting Point:** Mp 154-155°  
**Boiling Point:** Bp<sub>38</sub> 104°  
**Aldrich:** 20944-9

>>Derivative: Anilide

**CAS Registry Number:** 366-63-2  
**Molecular Formula:** C<sub>13</sub>H<sub>10</sub>FNO  
**Molecular Weight:** 215.226  
**Accurate Mass:** 215.074642  
**Percentage Composition:** C 72.55%; H 4.68%; F 8.83%; N 6.51%; O 7.43%  
**Physical Description:** Needles (EtOH)  
**Melting Point:** Mp 185°

>>Derivative: Hydrazide

**CAS Registry Number:** 456-06-4  
**Molecular Formula:** C<sub>7</sub>H<sub>7</sub>FN<sub>2</sub>O  
**Molecular Weight:** 154.144  
**Accurate Mass:** 154.054241  
**Percentage Composition:** C 54.54%; H 4.58%; F 12.33%; N 18.17%; O 10.38%  
**Physical Description:** Cryst. (EtOAc)  
**Melting Point:** Mp 161.5-163°  
**Other:** MG Z2743

>>Derivative: Nitrile

**Synonym(s):** 1-Cyano-4-fluorobenzene

**CAS Registry Number:** 1194-02-1  
**Molecular Formula:** C<sub>7</sub>H<sub>4</sub>FN  
**Molecular Weight:** 121.114  
**Accurate Mass:** 121.032777  
**Percentage Composition:** C 69.42%; H 3.33%; F 15.69%; N 11.56%  
**Melting Point:** Mp 35-36°  
**Boiling Point:** Bp<sub>750</sub> 188.2°

**Aldrich:** 13941-6  
**Fluka:** 46680  
**Sigma:** F4885

>>Derivative: Anhydride

**Molecular Formula:** C<sub>14</sub>H<sub>8</sub>F<sub>2</sub>O<sub>3</sub>  
**Molecular Weight:** 262.212  
**Accurate Mass:** 262.044151  
**Percentage Composition:** C 64.13%; H 3.08%; F 14.49%; O 18.31%  
**Physical Description:** Cryst. (hexane)  
**Melting Point:** Mp 108-110°

**References:**