Fluorinated Alcohol with Unique Properties

HFIP

- Highly polar, thermally stable, UV transparent
- Miscible with water and polar organic solvents
- Low nucleophilicity
- Strong solvating power through hydrogen bonds

Hexafluoroisopropyl Alcohol (= HFIP)
25g / 100g / 500g

Physical Properties (from literature)

bp: 58.6°C  mp: -4°C  Density: 1.605  pKa: 9.3

Polarity ($\varepsilon^n_\pi$): 1.068  (vs $\varepsilon^n_\pi$(Me4Si) = 0, $\varepsilon^n_\pi$(water) = 1)

Nucleophilicity (N): -4.23  (vs N(EtOH) = 0)

Hydrogen bond donor power ($\alpha$): 1.96  (vs $\alpha$(EtOH) = 0)

Hydrogen bond acceptor power ($\beta$): 0  (vs $\beta$(EtOH) = 0.77)

Review


Applications 1

Deprotecting agent for nucleoside and nucleotide synthesis


Additive for oligonucleotides analysis by HPLC/ESI-MS

Fluorinated Alcohol with Unique Properties: HFIP

**Applications 2**

**Solvent for olefin epoxidation by hydrogen peroxide**

**Solvent for catalytic oxidation**

**Solvent for metal-catalyzed cyclization**

**Solvent for stabilizing radical cation**

**Solvent for radical polymerization**

**Solvent for MALDI-TOF-MS or GPC/SEC analysis of polymers**

**Stabilizer for α-helical conformation in unfolded proteins and peptides**

**Applications 3**

**Solvent for radical polymerization**

**Solvent for radical polymerization**

**Solvent for radical polymerization**

**Stabilizer for α-helical conformation in unfolded proteins and peptides**

**Related Products**

<table>
<thead>
<tr>
<th>Product Description</th>
<th>Quantity</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>HFIP [for HPLC]</td>
<td>100g</td>
<td>[H1793]</td>
</tr>
<tr>
<td>2,2,2-Trifluoroethanol (= TFE)</td>
<td>25g / 100g / 500g</td>
<td>[T0435]</td>
</tr>
<tr>
<td>Trifluoroacetic Acid (= TFA)</td>
<td>25g / 100g / 500g</td>
<td>[T0431]</td>
</tr>
<tr>
<td>Trifluoroacetic Acid Sodium Salt</td>
<td>25g / 100g / 500g</td>
<td>[T1336]</td>
</tr>
</tbody>
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