



>>Entry Name: Diethylphosphoramidous acid, 9CI

$\text{Et}_2\text{NP}(\text{OH})_2$

Molecular Formula: $\text{C}_4\text{H}_{12}\text{NO}_2\text{P}$

Molecular Weight: 137.118

Accurate Mass: 137.060566

Percentage Composition: C 35.04%; H 8.82%; N 10.22%; O 23.34%; P 22.59%

>>Derivative: Di-Et ester

Synonym(s): Diethyl diethylphosphoramidite

CAS Registry Number: 20262-87-7

Molecular Formula: $\text{C}_8\text{H}_{20}\text{NO}_2\text{P}$

Molecular Weight: 193.225

Accurate Mass: 193.123166

Percentage Composition: C 49.73%; H 10.43%; N 7.25%; O 16.56%; P 16.03%

Physical Description: Liq.

Boiling Point: Bp_{10} 59-60°

Refractive Index: n_D^{20} 1.4305

>>Derivative: Di-*tert*-butyl ester

Synonym(s): Di-*tert*-butyl diethylphosphoramidite

CAS Registry Number: 117924-33-1

Molecular Formula: $\text{C}_{12}\text{H}_{28}\text{NO}_2\text{P}$

Molecular Weight: 249.332

Accurate Mass: 249.185766

Percentage Composition: C 57.81%; H 11.32%; N 5.62%; O 12.83%; P 12.42%

Use/Importance: Phosphorylation agent for peptides

Physical Description: Liq.

Boiling Point: Bp_2 65-66°. $\text{Bp}_{0.3}$ 39-41°

Refractive Index: n_D^{20} 1.4334

Aldrich: 36596-3

Fluka: 34686

>>Derivative: Di-Ph ester

Synonym(s): Diphenyl diethylphosphoramidite

CAS Registry Number: 14747-96-7

Molecular Formula: $\text{C}_{16}\text{H}_{20}\text{NO}_2\text{P}$

Molecular Weight: 289.313

Accurate Mass: 289.123166

Percentage Composition: C 66.42%; H 6.97%; N 4.84%; O 11.06%; P 10.71%

Physical Description: Liq.

Boiling Point: $\text{Bp}_{0.035}$ 107-108°

Refractive Index: n_D^{20} 1.5530

>>Derivative: Difluoride

CAS Registry Number: 363-84-8

Molecular Formula: $\text{C}_4\text{H}_{10}\text{F}_2\text{NP}$

Molecular Weight: 141.1

Accurate Mass: 141.051892

Percentage Composition: C 34.05%; H 7.14%; F 26.93%; N 9.93%; P 21.95%

Use/Importance: Ligand for Ni, Mo, Fe, Rh and W

Boiling Point: Bp_{100} 47°

Refractive Index: n_D^{20} 1.3840

>>Derivative: Dichloride

see Diethylphosphoramidous dichloride, [GGQ85-G](#)