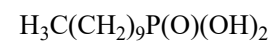




>>Entry Name: Decylphosphonic acid

Synonym(s): 1-Decanephosphonic acid

CAS Registry Number: 6874-60-8



Molecular Formula: $\text{C}_{10}\text{H}_{23}\text{O}_3\text{P}$

Molecular Weight: 222.264

Accurate Mass: 222.138482

Percentage Composition: C 54.04%; H 10.43%; O 21.60%; P 13.94%

Physical Description: Solid

Melting Point: Mp 102-102.5°

>>Derivative: Di-Me ester

Synonym(s): Dimethyl decylphosphonate. 1-(Dimethoxyphosphinyl)decane

Molecular Formula: $\text{C}_{12}\text{H}_{27}\text{O}_3\text{P}$

Molecular Weight: 250.317

Accurate Mass: 250.169782

Percentage Composition: C 57.58%; H 10.87%; O 19.17%; P 12.37%

Use/Importance: Nematocide

Physical Description: Liq.

Boiling Point: Bp₁₆ 182°

Refractive Index: n_D²⁰ 1.4388

>>Derivative: Di-Et ester

Synonym(s): Diethyl decylphosphonate. 1-(Diethoxyphosphinyl)decane

CAS Registry Number: 16165-68-7

Molecular Formula: $\text{C}_{14}\text{H}_{31}\text{O}_3\text{P}$

Molecular Weight: 278.371

Accurate Mass: 278.201082

Percentage Composition: C 60.41%; H 11.22%; O 17.24%; P 11.13%

Physical Description: Liq.

Boiling Point: Bp₁₇ 186-193°

>>Derivative: Dibutyl ester

Synonym(s): Dibutyl decylphosphonate. 1-(Dibutoxyphosphinyl)phosphonate

Molecular Formula: $\text{C}_{18}\text{H}_{39}\text{O}_3\text{P}$

Molecular Weight: 334.478

Accurate Mass: 334.263682

Percentage Composition: C 64.64%; H 11.75%; O 14.35%; P 9.26%

Physical Description: Liq.

Boiling Point: Bp₁ 161°

Refractive Index: n_D²⁵ 1.4402

>>Derivative: Di-Ph ester

Synonym(s): Diphenyl decylphosphonate. 1-(Diphenoxyphosphinyl)decane

Molecular Formula: $\text{C}_{22}\text{H}_{31}\text{O}_3\text{P}$

Molecular Weight: 374.459

Accurate Mass: 374.201082

Percentage Composition: C 70.57%; H 8.34%; O 12.82%; P 8.27%

Physical Description: Liq.

Boiling Point: Bp_{0.1} 178°

Refractive Index: n_D²⁵ 1.5202