



>>Entry Name: Octadecylphosphonic acid

Synonym(s): 1-Phosphonooctadecane. 1-Octadecanephosphonic acid

CAS Registry Number: 4724-47-4

$\text{H}_3\text{C}(\text{CH}_2)_{17}\text{P}(\text{O})(\text{OH})_2$

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: Solid

Melting Point: Mp 98.5-99°

>>Derivative: Dibutyl ester

Synonym(s): Dibutyl octadecylphosphonate

Molecular Formula: $\text{C}_{26}\text{H}_{55}\text{O}_3\text{P}$

Molecular Weight: 446.692

Accurate Mass: 446.388882

Percentage Composition: C 69.91%; H 12.41%; O 10.75%; P 6.93%

Physical Description: Liq.

Boiling Point: Bp₂ 248-250°

Density: d_4^{25} 0.9

Refractive Index: n_D^{25} 1.4499

References:

Kosolapoff, G.M., *J.A.C.S.*, 1945, **67**, 1180