



>>Entry Name: Hexamethylphosphorous triamide, 9CI

Synonym(s): Tris(dimethylamino)phosphine

CAS Registry Number: 1608-26-0

$\text{P}(\text{NMe}_2)_3$

Molecular Formula: $\text{C}_6\text{H}_{18}\text{N}_3\text{P}$

Molecular Weight: 163.202

Accurate Mass: 163.123834

Percentage Composition: C 44.16%; H 11.12%; N 25.75%; P 18.98%

Use/Importance: Versatile synthetic reagent. Employed in Wittig reactions: Deoxygenates peroxides, sulfoxides, and azoxy compds., and desulfurizes disulfides. Used to selectively functionalize diols, and to convert carboxylic acids into their *N,N*-dimethylamides

Physical Description: Yellow oil

Melting Point: Mp -44°

Boiling Point: Bp $162-164^\circ$. Bp₁₂ $49-51^\circ$

Refractive Index: n_D^{20} 1.4660

Aldrich: 39329-0

Fluka: 93338

Sigma: H4006

>>Derivative: Oxide

>>Derivative: Sulfide

>>Derivative: Selenide

References:

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