>>**Entry Name: Hexyltriphenylphosphonium(1+),** 9CI

CAS Registry Number: 47415-89-4
$Ph_3P^{(+)}(CH_2)_5CH_3$

Molecular Formula: $C_{24}H_{28}P^{(+)}$
Molecular Weight: 347.459
Accurate Mass: 347.192862
Percentage Composition: C 82.96%; H 8.12%; P 8.91%
Use/Importance: Treatment of salts with butyllithium yields the ylide, widely used in synth. of prostaglandins and pheromones
Hazard & Toxicity: Salts inhibit AChE activity in vertebrates and schistosomes

>>**Derivative:** Bromide

CAS Registry Number: 4762-26-9

Molecular Formula: $C_{24}H_{28}BrP$
Molecular Weight: 427.363
Accurate Mass: 426.131198
Percentage Composition: C 67.45%; H 6.60%; Br 18.70%; P 7.25%
Physical Description: Solid
Melting Point: Mp 201-204°
Aldrich: 30144-2

>>**Derivative:** Iodide

CAS Registry Number: 60106-53-8

Molecular Formula: $C_{24}H_{28}IP$
Molecular Weight: 474.363
Accurate Mass: 474.097335
Percentage Composition: C 60.77%; H 5.95%; I 26.75%; P 6.53%
Physical Description: Solid
Melting Point: Mp 130-131°. Mp 136-141°
Aldrich: 39197-2

>>**Derivative:** Ylide
Synonym(s): Hexylidenetriphenylphosphorane

Molecular Formula: $C_{24}H_{27}P$
Molecular Weight: 346.451
Accurate Mass: 346.185037
Percentage Composition: C 83.20%; H 7.85%; P 8.94%
Use/Importance: Reactive Wittig reagent used in prostaglandin synth. Prepd. *in situ*

References:

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Hauser, C.F. *et al.*, *J.O.C.*, 1963, **28**, 372, *(bromide)*
Ohloff, G. *et al.*, *Helv. Chim. Acta*, 1973, **56**, 1176, *(ylide, use)*
Müller-Schwartz, D. *et al.*, *J. Chem. Ecol.*, 1976, **2**, 389, *(bromide, ir, ylide, use)*
Kowal, R. *et al.*, *Pol. J. Chem. (Rocz. Chem.)*, 1979, **53**, 673, *(iodide)*
Bestmann, H.J. *et al.*, *Annalen*, 1981, 2117, *(ylide, use)*
Wilcockson, W.S. *et al.*, *Comp. Biochem. Physiol., C: Comp. Pharmacol.*, 1982, **72**, 101, *(pharmacol)*
Romanov, G.V. *et al.*, *Khim.-Farm. Zh.*, 1990, **24**, 23, *(synth)*