



>>Entry Name: Triisopropylphosphine, 8Cl
Synonym(s): Tris(1-methylethyl)phosphine, 9Cl

CAS Registry Number: 6476-36-4

$\text{P}[\text{CH}(\text{CH}_3)_2]_3$

Molecular Formula: $\text{C}_9\text{H}_{21}\text{P}$
Molecular Weight: 160.239
Accurate Mass: 160.138087
Percentage Composition: C 67.46%; H 13.21%; P 19.33%
Use/Importance: Reduces aldehydes and ketones to hydrocarbons
Physical Description: Air-sensitive liq.
Melting Point: Mp -72°
Boiling Point: Bp 176-178°. Bp₂₂ 81°
Hazard & Toxicity: Vigorous reaction with peroxides, ozonides, N-oxides and also CHCl_3

Aldrich: 37730-9
Fluka: 92093

>>Derivative: Methiodide
Synonym(s): Triisopropylmethylphosphonium iodide

Molecular Formula: $\text{C}_{10}\text{H}_{24}\text{IP}$
Molecular Weight: 302.178
Accurate Mass: 302.066035
Percentage Composition: C 39.75%; H 8.01%; I 42.00%; P 10.25%
Physical Description: Solid
Melting Point: Mp 360°

>>Derivative: Oxide

CAS Registry Number: 17513-58-5

Molecular Formula: $\text{C}_9\text{H}_{21}\text{OP}$
Molecular Weight: 176.238
Accurate Mass: 176.133002
Percentage Composition: C 61.34%; H 12.01%; O 9.08%; P 17.57%
Physical Description: Liq. solidifying at r.t.
Boiling Point: Bp₁₂ 126-130°. Bp_{0.8} 110-114°

>>Derivative: Sulfide

CAS Registry Number: 17513-59-6

Molecular Formula: $\text{C}_9\text{H}_{21}\text{PS}$
Molecular Weight: 192.305
Accurate Mass: 192.110157
Percentage Composition: C 56.21%; H 11.01%; P 16.11%; S 16.67%
Physical Description: Solid
Melting Point: Mp 35°

References:

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Inoue, H. et al., Z. Naturforsch., B, 1985, **40**, 22, (P-31 nmr, Mössbauer)
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