



>>Entry Name: (2-Hydroxyethyl)triphenylphosphonium(1+), 9Cl

Synonym(s): 2-(Triphenylphosphonio)ethanol(1+)

CAS Registry Number: 50443-18-0

Related CAS Registry Numbers(s): 31494-62-9

$\text{Ph}_3\text{P}^{(+)}\text{CH}_2\text{CH}_2\text{OH}$

Molecular Formula: $\text{C}_{20}\text{H}_{20}\text{OP}^{(+)}$

Molecular Weight: 307.351

Accurate Mass: 307.125177

Percentage Composition: C 78.16%; H 6.56%; O 5.21%; P 10.08%

>>Derivative: Chloride

CAS Registry Number: 23250-03-5

Molecular Formula: $\text{C}_{20}\text{H}_{20}\text{ClOP}$

Molecular Weight: 342.804

Accurate Mass: 342.094029

Percentage Composition: C 70.08%; H 5.88%; Cl 10.34%; O 4.67%; P 9.04%

Physical Description: Solid

Melting Point: Mp 240-242°

Aldrich: H3065-8

Fluka: 54514

>>Derivative: Bromide

CAS Registry Number: 7237-34-5

Molecular Formula: $\text{C}_{20}\text{H}_{20}\text{BrOP}$

Molecular Weight: 387.255

Accurate Mass: 386.063513

Percentage Composition: C 62.03%; H 5.21%; Br 20.63%; O 4.13%; P 8.00%

Physical Description: Cryst. (EtOH/Et₂O)

Melting Point: Mp 217-218.5°. Mp 212-213°

Aldrich: 30413-1

>>Derivative: Iodide

CAS Registry Number: 4336-77-0

Molecular Formula: $\text{C}_{20}\text{H}_{20}\text{IOP}$

Molecular Weight: 434.256

Accurate Mass: 434.02965

Percentage Composition: C 55.32%; H 4.64%; I 29.22%; O 3.68%; P 7.13%

Physical Description: Solid

Melting Point: Mp 185-186°

References:

Aldrich Library of ¹³C and ¹H FT NMR Spectra, 1992, **2**, 1672A; 1672B, (*nmr*)

Aldrich Library of FT-IR Spectra, 1st edn., 1985, **2**, 546D, (*ir*)

Seyferth, D. *et al.*, *J. Organomet. Chem.*, 1966, **6**, 205, (*synth*)

Kunz, H., *Phosphorus Relat. Group V Elem.*, 1974, **3**, 273, (*deriv*)

Chantreux, D. *et al.*, *Tetrahedron*, 1984, **40**, 3087, (*bromide*)

Jaeger, D.A. *et al.*, *J.O.C.*, 1986, **51**, 1350, (*reactions*)

Kitahara, T. *et al.*, *Tetrahedron*, 1988, **44**, 4713, (*bromide, use, ylide*)