>>**Entry Name: (Cyanomethyl)triphenylphosphonium(1+),** 9Cl

**CAS Registry Number:** 47181-92-0
**Related CAS Registry Numbers(s):** 15898-47-2
$Ph_3P^{(+)}CH_2CN$

**Molecular Formula:** $C_{20}H_{17}NP^{(+)}$
**Molecular Weight:** 302.335
**Accurate Mass:** 302.109861
**Percentage Composition:** C 79.45%; H 5.67%; N 4.63%; P 10.24%

>>**Derivative:** Chloride

**CAS Registry Number:** 4336-70-3

**Molecular Formula:** $C_{20}H_{17}ClNP$
**Molecular Weight:** 337.787
**Accurate Mass:** 337.078713
**Percentage Composition:** C 71.12%; H 5.07%; Cl 10.50%; N 4.15%; P 9.17%
**Physical Description:** Cryst. ($MeNO_2$ or EtOH)
**Melting Point:** Mp 252°. Mp 278-279°
**pKa Value:** p$K_a$ 7.6
**Other Data:** Alkali yields the ylide Triphenylphosphoranylideneacetonitrile GGM28-X

**Aldrich:** 46493-7
**Rare Chemicals Library:** S63371-2

>>**Derivative:** Bromide

**CAS Registry Number:** 15898-47-2

**Molecular Formula:** $C_{20}H_{17}BrNP$
**Molecular Weight:** 382.239
**Accurate Mass:** 381.048197
**Percentage Composition:** C 62.85%; H 4.48%; Br 20.90%; N 3.66%; P 8.10%
**Physical Description:** Solid
**Melting Point:** Mp 255-257°
**Rare Chemicals Library:** S61668-0

>>**Derivative:** Iodide

**CAS Registry Number:** 77785-52-5

**Molecular Formula:** $C_{20}H_{17}INP$
**Molecular Weight:** 429.239
**Accurate Mass:** 429.014334
**Percentage Composition:** C 55.96%; H 3.99%; I 29.56%; N 3.26%; P 7.22%
**Physical Description:** Cryst. ($H_2O$)
**Melting Point:** Mp 224-226°

**References:**


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Albright, T.A. *et al.*, *J.A.C.S.*, 1975, **97**, 2942, *(P-31 nmr)*
Fluck, E. *et al.*, *Pure Appl. Chem.*, 1975, **44**, 373, *(pe)*
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Herconet, A. *et al.*, *Phosphorus Sulfur Relat. Elem.*, 1987, **29**, 111, *(bromide)*