>>**Entry Name: (2-Oxoethyl)triphenylphosphonium(1+),** 9Cl
Synonym(s): (Formylmethyl)triphenylphosphonium(1+), 8Cl

$Ph_3P^{(+)}CH_2CHO$

Molecular Formula: $C_{20}H_{18}OP^{(+)}$
Molecular Weight: 305.335
Accurate Mass: 305.109527
Percentage Composition: C 78.67%; H 5.94%; O 5.24%; P 10.14%

>>**Derivative:** Chloride

CAS Registry Number: 62942-43-2

Molecular Formula: $C_{20}H_{18}ClOP$
Molecular Weight: 340.788
Accurate Mass: 340.078379
Percentage Composition: C 70.49%; H 5.32%; Cl 10.40%; O 4.69%; P 9.09%
Use/Importance: Source of Triphenylphosphoranylideneacetaldehyde GGL97-M
Physical Description: Cryst. ($CHCl_3$/EtOAc)
Melting Point: Mp 212-213 dec.°
pKa Value: pK_a 6.15 (25°, EtOH aq.)
Other Data: At pH10 in 10% EtOH aq., $t_{1/2}$ = 391 ±21 hr. Exists mostly as *trans*-enol form in $CHCl_3$, but as keto-form (100%) in MeOH
Aldrich: 30532-4
Fluka: 47718

>>**Derivative:** Bromide

CAS Registry Number: 19753-63-0

Molecular Formula: $C_{20}H_{18}BrOP$
Molecular Weight: 385.239
Accurate Mass: 384.047863
Percentage Composition: C 62.36%; H 4.71%; Br 20.74%; O 4.15%; P 8.04%
Use/Importance: Source of Triphenylphosphoranylideneacetaldehyde GGL97-M
Physical Description: Cryst. ($CHCl_3$/EtOAc)
Melting Point: Mp 191-192°

>>**Derivative:** Tetrafluoroborate

Molecular Formula: $C_{20}H_{18}BF_4OP$
Molecular Weight: 392.14
Accurate Mass: 392.112444
Percentage Composition: C 61.26%; H 4.63%; B 2.76%; F 19.38%; O 4.08%; P 7.90%
Physical Description: Solid
Melting Point: Mp 76-77°

>>**Derivative:** Ylide

References:

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Devlin, C.J. *et al.*, *Tetrahedron*, 1972, **28**, 3501, *(bromide, synth, pmr, ir, ms, nmr)*
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