



>>Entry Name: Dichlorophosphonoacetic acid

CAS Registry Number: 14112-51-7



Molecular Formula: $\text{C}_2\text{H}_3\text{Cl}_2\text{O}_5\text{P}$

Molecular Weight: 208.922

Accurate Mass: 207.909516

Percentage Composition: C 11.50%; H 1.45%; Cl 33.94%; O 38.29%; P 14.83%

Physical Description: Hygroscopic cryst. + $2\text{H}_2\text{O}$

Melting Point: Mp 85-125°

Solubility: V. sol. H_2O , EtOH, Me_2CO ; insol. nonpolar solvs.

>>Derivative: Trichloride

Synonym(s): Dichloro(dichlorophosphinyl)acetyl chloride

Molecular Formula: $\text{C}_2\text{Cl}_5\text{O}_2\text{P}$

Molecular Weight: 264.258

Accurate Mass: 261.807852

Percentage Composition: C 9.09%; Cl 67.08%; O 12.11%; P 11.72%

Physical Description: Fuming liq.

Boiling Point: Bp₇ 88-89°

Density: d_4^{25} 1.81

Refractive Index: n_D^{20} 1.5212

>>Derivative: Trianilide

Synonym(s): 2,2-Dichloro-2-(dianilinophosphinyl)acetanilide

CAS Registry Number: 14112-50-6

Molecular Formula: $\text{C}_{20}\text{H}_{18}\text{Cl}_2\text{N}_3\text{O}_2\text{P}$

Molecular Weight: 434.26

Accurate Mass: 433.051368

Percentage Composition: C 55.32%; H 4.18%; Cl 16.33%; N 9.68%; O 7.37%; P 7.13%

Physical Description: Cryst. (EtOH)

Melting Point: Mp 153-155°

>>Derivative: Di-Et ether, Et ester

Synonym(s): Triethyl 2,2-dichloro-2-phosphonoacetate

CAS Registry Number: 5823-12-1

Molecular Formula: $\text{C}_8\text{H}_{15}\text{Cl}_2\text{O}_5\text{P}$

Molecular Weight: 293.083

Accurate Mass: 292.003416

Percentage Composition: C 32.79%; H 5.16%; Cl 24.19%; O 27.30%; P 10.57%

Physical Description: Oil

Boiling Point: Bp_{0.01} 84-86°

Density: d^{20} 1.3

Refractive Index: n_D^{20} 1.4560

Aldrich: 40002-5

References:

Shevchenko, V.I. *et al.*, *Zh. Obshch. Khim.*, 1966, **36**, 1645; *J. Gen. Chem. USSR (Engl. Transl.)*, 1966, **36**, 1645, (synth)

McKenna, C.E. *et al.*, *J.O.C.*, 1986, **51**, 5467, (di-Et ether-Et ester)