



>>Entry Name: (Iodomethyl)phosphonic acid, 9CI

CAS Registry Number: 13298-02-7

$\text{ICH}_2\text{P}(\text{O})(\text{OH})_2$

Molecular Formula: $\text{CH}_4\text{IO}_3\text{P}$

Molecular Weight: 221.919

Accurate Mass: 221.89428

Percentage Composition: C 5.41%; H 1.82%; I 57.19%; O 21.63%; P 13.96%

Physical Description: Hygroscopic needles (dichloroethane)

Melting Point: Mp 89-91°

pKa Value: $\text{p}K_{\text{a}}$ 1.6 (H_2O 25)

>>Derivative: Di-Et ester

Synonym(s): Diethyl (iodomethyl)phosphonate

CAS Registry Number: 10419-77-9

Molecular Formula: $\text{C}_5\text{H}_{12}\text{IO}_3\text{P}$

Molecular Weight: 278.026

Accurate Mass: 277.95688

Percentage Composition: C 21.60%; H 4.35%; I 45.64%; O 17.26%; P 11.14%

Physical Description: Liq.

Boiling Point: $\text{Bp}_{0.7}$ 101°

Refractive Index: n_{D}^{17} 1.4975

>>Derivative: Di-2-propenyl ester

Synonym(s): Di-2-propenyl (iodomethyl)phosphonate. Diallyl (iodomethyl)phosphonate

Molecular Formula: $\text{C}_7\text{H}_{12}\text{IO}_3\text{P}$

Molecular Weight: 302.048

Accurate Mass: 301.95688

Percentage Composition: C 27.84%; H 4.00%; I 42.01%; O 15.89%; P 10.25%

Physical Description: Liq.

Boiling Point: $\text{Bp}_{0.6}$ 95-106°. $\text{Bp}_{0.05}$ 65-67°

Refractive Index: n_{D}^{20} 1.4995

>>Derivative: Mono-Et, mono-Ph

Synonym(s): Ethyl phenyl (iodomethyl)phosphonate

CAS Registry Number: 107701-17-7

Molecular Formula: $\text{C}_9\text{H}_{12}\text{IO}_3\text{P}$

Molecular Weight: 326.07

Accurate Mass: 325.95688

Percentage Composition: C 33.15%; H 3.71%; I 38.92%; O 14.72%; P 9.50%

Physical Description: Liq.

Boiling Point: $\text{Bp}_{0.05}$ 117-121°

>>Derivative: Mono-Ph ester

Synonym(s): Monophenyl (iodomethyl)phosphonate

CAS Registry Number: 108909-22-4

Molecular Formula: $\text{C}_7\text{H}_8\text{IO}_3\text{P}$

Molecular Weight: 298.017

Accurate Mass: 297.92558

Percentage Composition: C 28.21%; H 2.71%; I 42.58%; O 16.11%; P 10.39%

Physical Description: Solid

Melting Point: Mp 108-111°

>>Derivative: Di-Ph ester

Synonym(s): Diphenyl (iodomethyl)phosphonate

CAS Registry Number: 84441-54-3