



>>Entry Name: **1,2-Diphosphinoethane**

Synonym(s): 1,2-Ethanediyldisphosphine, 9Cl. Ethylenebisphosphine, 8Cl

CAS Registry Number: 5518-62-7

Type of Compound Code(s): AC0100

$\text{H}_2\text{PCH}_2\text{CH}_2\text{PH}_2$

Molecular Formula: $\text{C}_2\text{H}_8\text{P}_2$

Molecular Weight: 94.033

Accurate Mass: 94.010124

Percentage Composition: C 25.55%; H 8.57%; P 65.88%

Use/Importance: Bidentate ligand for Cr, Mo, Pd, Re and W. ^{99}Te complex used for hepatobiliary and myocardial imaging

Physical Description: Foul-smelling liq.

Melting Point: Mp -62.5°

Boiling Point: Bp₇₂₅ 114-117 $^\circ$

Other Data: Attacks grease

Hazard & Toxicity: Ignites in air

>>Derivative: Tetrakis (trimethylsilyl)

Type of Compound Code(s): AC0300

Molecular Formula: $\text{C}_{14}\text{H}_{40}\text{P}_2\text{Si}_4$

Molecular Weight: 382.759

Accurate Mass: 382.168232

Percentage Composition: C 43.93%; H 10.53%; P 16.18%; Si 29.35%

Physical Description: Liq.

Boiling Point: Bp_{0.002} 110-112 $^\circ$

References:

Maier, L., *Helv. Chim. Acta*, 1966, **49**, 842, (*synth, ir, pmr, nmr*)

Inorg. Synth., 1973, **14**, 10, (*synth*)

Issleib, K. *et al.*, *Phosphorus Sulfur Relat. Elem.*, 1977, **3**, 203, (*derivs*)

Issleib, K. *et al.*, *Synth. React. Inorg. Met.-Org. Chem.*, 1988, **18**, 215, (*silyl, synth, pmr*)

Bretherick, L., *Handbook of Reactive Chemical Hazards*, 4th edn., Butterworths, 1990, 0904