



>>Entry Name: Dimethylamine-1,1'-diphosphonic acid

Synonym(s): Iminobis(methylene)bisphosphonic acid, 9Cl. (Iminodimethylene)diphosphonic acid, 8Cl. Iminobis(methanesphosphonic acid). 1,1'-Diphosphonodimethylamine

CAS Registry Number: 17261-34-6

Related CAS Registry Numbers(s): 119497-71-1 119497-72-2 119497-73-3

Type of Compound Code(s): AC5000

HN[CH2P(O)(OH)2]2

Molecular Formula: C₂H₉NO₆P₂

Molecular Weight: 205.044

Accurate Mass: 204.990513

Percentage Composition: C 11.72%; H 4.42%; N 6.83%; O 46.82%; P 30.21%

Physical Description: Cryst. (EtOH aq.)

Melting Point: Mp 237°

Aldrich: 46231-4

Fluka: 56801

>>Derivative: Tetra-Et ester

Synonym(s): Tetraethyl iminobis(methylene)bisphosphonate

Type of Compound Code(s): AC5040

Molecular Formula: C₁₀H₂₅NO₆P₂

Molecular Weight: 317.258

Accurate Mass: 317.115713

Percentage Composition: C 37.86%; H 7.94%; N 4.41%; O 30.26%; P 19.53%

Physical Description: Liq.

Boiling Point: Bp_{0.3} 150-151°

References:

Petrov, K.A. *et al.*, *Zh. Obshch. Khim.*, 1959, **29**, 591, (*synth, ester*)

Szczepaniak, W. *et al.*, *Phosphorus Sulfur Relat. Elem.*, 1979, **7**, 337, (*deriv*)

Tsirul'nikova, N.V. *et al.*, *Zh. Obshch. Khim.*, 1981, **51**, 1028; *J. Gen. Chem. USSR (Engl. Transl.)*, 1981, **51**, 859, (*synth, props, pmr*)

Barsukov, A.V. *et al.*, *Zh. Obshch. Khim.*, 1983, **53**, 1243; *J. Gen. Chem. USSR (Engl. Transl.)*, 1983, **53**, 1109, (*synth*)

Vasil'ev, V.P. *et al.*, *Zh. Obshch. Khim.*, 1983, **53**, 1990; *J. Gen. Chem. USSR (Engl. Transl.)*, 1983, **53**, 1795, (*props*)

Shkol'nikova, L.M. *et al.*, *Izv. Akad. Nauk SSSR, Ser. Khim.*, 1985, 1035; *Bull. Acad. Sci. USSR, Div. Chem. Sci. (Engl. Transl.)*, 1985, 941, (*cryst struct*)

Motekaitis, R.J. *et al.*, *J. Coord. Chem.*, 1985, **14**, 139, (*complexes, props*)

Appleton, T.G. *et al.*, *Inorg. Chem.*, 1986, **25**, 726, (*props, pmr, cmr, complexes*)

Strumin, B.P. *et al.*, *Zh. Obshch. Khim.*, 1989, **59**, 537; *J. Gen. Chem. USSR (Engl. Transl.)*, 1989, **59**, 477, (*cmr, P-31 nmr*)