



>>Entry Name: [Bis(carboxymethyl)amino]methanephosphonic acid

Synonym(s): *N*-(Carboxymethyl)-*N*-(phosphonomethyl)glycine, 9Cl

CAS Registry Number: 5994-61-6

$(\text{HO})_2\text{P}(\text{O})\text{CH}_2\text{N}(\text{CH}_2\text{COOH})_2$

Molecular Formula: $\text{C}_5\text{H}_{10}\text{NO}_7\text{P}$

Molecular Weight: 227.11

Accurate Mass: 227.019491

Percentage Composition: C 26.44%; H 4.44%; N 6.17%; O 49.31%; P 13.64%

Melting Point: Mp 214-218° (dec.)

pKa Value: $\text{p}K_{\text{a}1}$ 1.25; $\text{p}K_{\text{a}2}$ 2.28; $\text{p}K_{\text{a}3}$ 5.61; $\text{p}K_{\text{a}4}$ 10.35 (25°, 0.1M NaCl)

References:

Dhansay, M.A. *et al.*, *J. Phys. Org. Chem.*, 1990, **3**, 248-254, (*synth*, *pmr*)